

# **Hermatypic Corals Of Western Australia**

Records and annotated species list

J.E.N. Veron and L.M. Marsh



**Records of the Western Australian Museum, Supplement No. 29 1988**



VERON

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Western Australian Museum  
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Perth 1988

*Cover*

A recently described coral, *Symphyllia wilsoni*, found only in south-western Australia. Photographed off Dunsborough by Clay Bryce.

*Rec. West. Aust. Mus.* Suppl. no. 29  
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ISSN 0313 122 X

Published by the Western Australian Museum, Francis Street, Perth, Western Australia 6000.



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### Abstract

A list of hermatypic coral species from Western Australia is presented for the first time, based principally on the Western Australian Museum collections. Locality and habitat data are given for specimens of 318 species, of 70 genera, from the coast of Western Australia and many of its offshore islands and reefs.

Computer analysis of distribution patterns shows a major division between reefal and non-reefal regions. Within reefal regions the offshore reefs are distinguished from the more southerly onshore reefs while the Houtman Abrolhos reefs are relatively distinct. Northern and southern non-reefal regions form distinct groups.

### Introduction

The literature on corals from Western Australia is sparse although it goes back to the early 19th century (Lamarck 1816). Most of the 19th and early 20th century records relate to specimens obtained during British Admiralty hydrographic cruises off the north-west coast together with small collections from the German *Gazelle* Expedition, described by Studer (1877) and the Swedish Scientific Expedition, described by Folkesson (1919). Neither the Hamburg South-Western Australian Research Expedition of 1905, under Drs W. Michaelsen and R. Hartmeyer, which made extensive invertebrate collections in Shark Bay, nor Professor W.J. Dakin's Percy Sladen Trust Expeditions to the Houtman Abrolhos resulted in publications on corals.

Rosen (1971) summarizing the literature records of the distribution of reef coral genera in the Indian Ocean listed only 33 confirmed records of genera from Western Australia, 31 of these from the north-west with two additional genera from south-western Australia.

An active W.A. Museum programme of field work on Western Australian coral reefs and temperate coral communities in the 1970s and 1980s has now raised the number of genera known from Western Australia to 70, and for the first time a list of species of hermatypic corals found in all parts of Western Australia has been compiled. Three hundred and eighteen species are herein recorded and an additional 20 species remain unidentified. Some of these may represent undescribed species.

The present list, while based principally on the Western Australian Museum (WAM) coral collection, includes literature records (where verified), records from other collections and some visual locality records. A reference to a recent description, including a figure where possible, is given for each species. A synonymy is included where this has changed since the publication of the Monographs on Scleractinia of Eastern Australia (Veron and Pichon 1976, 1980, 1982; Veron, Pichon and Wijsman-Best 1977; Veron and Wallace 1984) and Veron (1985a). The taxonomic sequence follows Veron (1986b).

Locality records include the WAM registration numbers of specimens, habitat and depth range at each locality (where recorded). Details of collector, date of collection and habitat details for each specimen are excluded for reasons of space but are recorded in the W.A. Museum registers. Taxonomic notes are included where necessary.

Species distribution records of the principal geographic regions are summarised in Table 2 and computer analysis of distribution patterns within Western Australia is given in Figure 3.



## History of Coral Taxonomy, Western Australia

The earliest collections of corals from Western Australia were made by Peron and Le Sueur (Lesueur), naturalist and artist respectively on the French Baudin Expedition which explored the coast of Western Australia in the ships *Geographe* and *Naturaliste* in 1801 and *Geographe* and *Casuarina* in 1803. Lamarck described 20 species of coral from this expedition with sketchy locality data e.g. "Les mers australes" and "les mers de la Nouvelle-Hollande". Since the ships surveyed the Western Australian coast from King George Sound to the Kimberley and visited Timor and Mauritius as well as parts of the east coast of Australia it is impossible to allocate type localities to any of these Lamarck species.

An appendix to King (1827) lists 19 species of hermatypic corals without any locality. Since King surveyed both the north and west coasts of Australia and did not state where the collection was deposited, there is no possibility of finding the localities from which the specimens were collected nor of revising the identification.

The next exploratory voyage to collect from Western Australia was that of Dumont D'Urville (1826-29). The natural history reports by Quoy and Gaimard (1833) record and figure *Astrea galaxea* Lamarck (= *Plesiastrea versipora*).

The German *Gazelle* expedition in 1874-76 collected corals at two Western Australian localities, Mermaid Strait in the Dampier Archipelago and the Shark Bay area. From Mermaid Strait Studer (1877) recorded *Euphyllia glabrescens* (as *E. rugosa* Dana), *Cyphastrea microphthalma* and *Turbinaria mesenterina* (as *T. cinerascens* Ellis and Solander).

Western Australian corals described from the British Museum (Natural History) collections by Brook (1893) and Bernard (1896 and 1897), derived from the British Admiralty, collected incidentally during survey work off the north coast, and from collections made by the British biologist, W. Saville-Kent.

Saville-Kent's early experience in the Natural History Departments of the British Museum, where he assisted in "the arrangement and nomenclature of the magnificent collections of Madrepores or Stony-corals" (Saville-Kent 1893) stimulated him to see the corals alive. Thus, when he became Commissioner of Fisheries in Queensland, he took every opportunity to photograph reefs at low tide and to collect fish, corals and other invertebrates for the British Museum. Saville-Kent's observations and photographs were included in his "The Great Barrier Reef of Australia" (1893).

In February 1893 Saville-Kent was appointed Commissioner of Fisheries for the Western Australian Government and held this post until March 1895. His interest in coral reefs was transferred to those of Western Australia and he collected at the Lacepede Islands, around Broome, and especially in Shark Bay and at the Houtman Abrolhos Is., which he visited in 1894. His work on experimental pearlshell culture in Shark Bay and proposals for the same at the Houtman Abrolhos Is. enabled him to pursue his observations on the corals and coral reefs of these areas. Saville-Kent (1897) observed: "*Turbinaria* has, as the result of a somewhat extensive investigation of the coral reefs around the Australian coast, been found by the author to enter most extensively into reef-composition in the colder, or extra-tropical, areas within Australian waters. They ... predominate in Wide Bay, ... on the southern outskirts of the Great Barrier Reef; in the

colder, though more northern, inter-tropical waters of the Gulf of Carpentaria; and finally in the Shark's Bay district of Western Australia. Nowhere, however, has it (*Turbinaria*) been found by him (the author) to attain to such a plenitude of development, with regard both to the number of varieties and the magnitude of their individual coralla, as in Shark's Bay, Western Australia." Saville-Kent (1897) figures very large coralla of *Turbinaria peltata* and *T. conspicua* collected from Shark Bay and presented to the British Museum (Natural History) where they were displayed. Saville-Kent's Western Australian collections of *Turbinaria* were included in Bernard's study of this genus (1896).

The three groups of reefs and islands of the Houtman Abrolhos were charted and described by Stokes (1846) who noted that " ... the Abrolhos, with the exception of Bermuda, is the place farthest removed from the equator where coral formation is found," and described a reef slope near Rat Island where "a wall descends almost sheer to the depth of 54 feet, the upper 20 feet are formed of a peculiar kind of coral growing in the shape of huge fans, spreading out from stout stems overlapping each other in clusters, and having angular cavities between. The coral forming the lower 34 feet of the wall is of the common large branch kind."

Saville-Kent (1897) reported "The Houtman's Abrolhos ... in place of being built up of the extra-tropical or cold water Turbinariae that flourish in Shark's Bay, were composed of ... Stag's Horn Corals, with which were intermingled many species of *Porites*, *Montipora*, *Pocillopora*, *Seriatopora* *Coeloria*, *Goniastrea*, *Mussa*, *Symphyllia* and other essentially tropical generic types. ... from just beneath low water mark downwards to as much as ten or fifteen fathoms, the corals ... attain to a luxuriance of growth that is not surpassed even upon the Great Barrier Reef of Queensland."

Saville-Kent (1897) recorded *Acropora* (as *Madrepora*) *hebes*, *M. syringoides*, *M. pulchra*, *M. corymbosa* and described *M. protaeiformis* from the Houtman Abrolhos Is. *Montipora circinata*, from the Houtman Abrolhos Is. was named and figured but not described. These *Acropora* specimens were, of course, too late to be included in Brook's 1893 monograph. However, material of other genera was included in catalogues by Bernard (1896, and 1897) and Matthai (1928). The synonymy of Saville-Kent's *Acropora* names has not been determined; *Montipora circinata* is discussed by Bernard (1897).

From his observations of the Houtman Abrolhos Is. marine fauna, Saville-Kent (1897) postulated "That an ocean current setting in from the equatorial area of the Indian Ocean penetrates as far south as this island group without impinging on the adjacent mainland ...". This subject was taken up again by Dakin (1919).

Brook's 1893 monograph of *Madrepora* included many specimens from Australia but very few from the west, since the work was completed prior to Saville-Kent's collecting in Western Australia. Brook lists *Acropora* (as *Madrepora*) *secunda* Dana and *M. pocillifera* Lamarck from Baudin Island collected by HMS *Penguin* (both bearing the BMNH number 92.1.16.6.); *M. seriata* Ehrenberg from Troulhton Island (same collector and number as above) and *M. glauca*, described from the holotype (BMNH 86.2.26.7) with the locality simply "West Australia", purchased.





was described by Folkeson (1919). A few specimens are from Broome and Cape Jaubert, but the majority are from the Pearl Banks 42-48 miles WSW of Cape Jaubert, from depths of 11-42 metres.

The hermatypic species recorded by Folkeson (1919) are *Turbinaria crater* (Pallas 1766) (an indeterminable species), *T. patula*, *T. peltata*, *T. mesenterina* (as *T. speciosa* Bernard 1896) *Scolymia vitiensis* (as *Lithophyllia margariticola* (Klunzinger 1879)) *Trachyphyllia geoffroyi* (as *T. amarantus* Dana 1846) *Favites flexuosa* (as *Favia vasta* Klunzinger 1879) *Plesiastrea versipora* (as *P. urvillei* Edwards and Haime 1850) *Cycloderis* (as *Fungia*) *cyclolites* Lamarck 1816, *Fungia simplex* (Gardiner 1905) (as *Herpolitha simplex*) and *Polyphyllia talpina* (as *P. producta* Folkeson).

Matthai (1928) recorded 14 species of coral from north-western Australia: *Platygyra daedalea* (as *Coeloria daedalea*), *P. lamellina* (as *Coeloria lamellina*), *Trachyphyllia geoffroyi*, *Hydnophora exesa* (two specimens, one as *H. contignatio* (Forskål 1775), *Lobophyllia corymbosa*, *L. hemprichii* (as *L. costata*), *Symphyllia recta*, *Euphyllia glabrescens*, *Euphyllia fimbriata*, *Catalaphyllia jardinei* (as *Euphyllia picteti*) and *Plerogyra sinuosa*. He described a new genus and two new species, based on material collected by Saville-Kent: *Caulastrea tumida* and *Montigyra kenti*. While the former is common in certain inshore areas such as the Dampier Archipelago, the latter is still only known from the holotype.

Totton (1952) figured two specimens of *Moseleya latistellata* from Western Australia and listed those held in the collections of the British Museum (Natural History) with taxonomic notes. He also figured *Plesiastrea versipora* (as *P. urvillei*), *Culicia tenella* and *Scolymia australis* (as *Culicia magna*) from southern Australia.

In a brief account of the littoral environment of Rottneest Island, off Fremantle, Hodgkin, Marsh and Smith (1959) noted the occurrence of a 'reef' of *Pocillopora damicornis* near Parker Point, and in a faunal survey of Carnac Island, off Fremantle, Marsh and Hodgkin (1962) listed three species of corals (identified by J.W. Wells): *Plesiastrea versipora* (as *P. urvillei*), *Goniastrea australensis* (as *Platygyra lamellina*), and a species recorded as *Favites magnistellata* (Edwards and Haime).

Wells (1962)\* described a new species of *Coscinaraea*, *C. marshae*, from south-western Australia and listed, from the same area (between Rottneest Island and Cape Naturaliste): *Favites abdita* (as *F. magnistellata*), *Goniastrea australensis* (as *Goniastrea benhami* Vaughan), *Plesiastrea versipora* (as *P. urvillei* Edwards and Haime) and *Scolymia australis* (as *Homophyllia australis* (Edwards and Haime)), *Montipora mollis* (as *M. sp. cf. M. multiformis* Bernard), *Turbinaria frondens* (as *Turbinaria sp. cf. T. danae* Bernard), *Pocillopora damicornis*, *Symphyllia wilsoni* Veron (as *Oulophyllia crispa*) as well as two ahermatypic species, *Tubastrea aurea* (Quoy and Gaimard) and *T. diaphana* (Dana).

Wells (1964)\* recorded *Scolymia australis* (as *Homophyllia australis*) from Rottneest Island, Garden Island, Point Peron, and Triggs Bay (Trigg Island) in south-western Australia and *Scolymia vitiensis* (as *Parascolymia vitiensis*) from north-western Australia, based on Folkeson (1919). This record has not been confirmed by the present collections.

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\* Synonymy is from Veron & Pichon (1977), Veron *et al.* (1980) and Veron and Wallace (1984).

Rosen (1968) identified two Western Australian specimens of Faviidae in the BMNH collection: *Favia speciosa* from Roebuck Bay (BMNH 1895.10.9.133) and *Barabattoia mirabilis* Yabe and Sugiyama, 1941 from King Sound, collected by W. Saville-Kent (BMNH 1894.6.16.37). Rosen (1971), discussing the distribution of reef coral genera in the Indian Ocean, listed 31 genera from north-western Australia, one from Shark Bay, 13 from the Houtman Abrolhos Is., 12 from the Perth area, 2 from Cape Leeuwin and 2 from the Recherche Archipelago, all from the literature.

Rosen's generic numbers were raised considerably by Wilson and Marsh (1979), based on collections in the Western Australian Museum, Perth. They recorded, from north to south, 44 genera from the Dampier Archipelago, 34 from the North West Cape area, 9 from Port Gregory, 37 from the Houtman Abrolhos Is., 14 from the Fremantle area, 8 from Geographe Bay and 3 from Esperance. Wilson and Marsh also briefly described some of the Houtman Abrolhos reefs and discussed the faunal composition and its zoogeographical affinities. At that date approximately 70 species of hermatypic coral were recognised at the Houtman Abrolhos Is. Apart from the corals, 67% of the fish species and 73% of the echinoderms recorded from the Houtman Abrolhos Is. were found to be tropical species, the remainder being southern species with a few west coast endemics.

In a revision of the genus *Leptoseris*, Dineson (1980) published Western Australian Museum records of *Leptoseris hawaiiensis* from Seringapatam Atoll, *L. scabra* and *L. mycetoseroides* from the Houtman Abrolhos Is. and described as new *L. glabra*, with a paratype from the Houtman Abrolhos Is. She included in the synonymy of this species Veron and Pichon's specimens identified as *L. explanata* Yabe and Sugiyama, 1941 while Yabe and Sugiyama's species was placed in the synonymy of *L. scabra*. *Leptoseris glabra*, however, is a junior synonym of *L. explanata* Yabe and Sugiyama, 1941, the holotype of which (figured, Veron & Pichon 1980 p. 46) is an ill-defined corallum from deep water.

Veron (1985a) described seven new species of hermatypic corals from Western Australia: *Acropora abrolhosensis*, *Astreopora explanata*, *Goniopora pendulus*, *Alveopora gigas* and *Symphyllia wilsoni* with type localities the Houtman Abrolhos Is., *Australomussa rowleyensis* from the Dampier Archipelago and *Hydnophora pilosa* with the holotype from Elizabeth Reef (eastern Australia) and paratypes from Houtman Abrolhos Is. and the Dampier Archipelago. In addition *Montipora capricornis* and *Porites heronensis*, newly described from eastern Australia, were recorded also from Western Australia.

Veron (1985b) stated that 276 species of hermatypic coral have been found in Western Australia, noting that all but 20 of these had also been recorded from the east coast. He raised the number of genera found at the Houtman Abrolhos to 44 with more than 157 species.

### The Western Australian Museum Coral Collection

Interest in the coral fauna of Western Australia was stimulated by a visit to Western Australia by J.W. Wells in 1954. Subsequently, collections made by E.P. Hodgkin, B.R. Wilson and L.M. Marsh (all of the University of W.A.), by snorkelling and/or scuba



diving, at South Passage (Shark Bay), Port Gregory, Rottnest, Carnac and Garden Islands (near Fremantle) and Geographe Bay were sent to Wells for identification. He described one new species and listed ten other hermatypic species from south-western Australia (Wells 1962). Wilson continued his interest in Western Australian corals, leading an expedition to Point Cloates on Ningaloo Station (North West Cape area) in 1968 and a three-year seasonal *Acanthaster planci* study at Kendrew Island in the Dampier Archipelago (1972-74). The latter provided the opportunity for major additions to the coral collection by Wilson and Marsh. Faunal survey work in the Dampier Archipelago in 1978 enabled Marsh to sample many inshore habitats not previously covered. Wilson led two faunal surveys to the Houtman Abrolhos Is. in 1977 and 1978, giving good coverage of the Easter and Wallabi groups, while other collections were made by Marsh at North Island (1976) and in the Pelsaert Group (1976). Further coral collections were made by an expedition of students of Aquinas College to the Easter Group in 1970 and North Island in 1974.

A series of Western Australian Museum field trips in 1977, 1978, 1980 and 1981, some in conjunction with the National Parks Authority of Western Australia were made to the Ningaloo Reefs resulting in the first extensive coral collections of this region.

In 1979 Marsh collected corals from the South Passage area, Shark Bay and at several localities on the east side of Dirk Hartog Island, including Sunday Island and Egg Island. Collections were made from Bernier and Dorre Islands by Slack-Smith in 1980 and by Slack-Smith and Marsh in many parts of Shark Bay in 1981.

In 1982, 1984 and 1986 the Western Australian Museum carried out faunal surveys of the shelf-edge atolls off the north-west coast. Veron participated in these as part of a wider study, initiated in 1982, of the distribution patterns of Western Australian corals. This required species inventories sufficiently complete to characterise each major coral-inhabiting region. Each of the regions noted below were investigated using scuba. Diving sites were selected to encompass a full range of coral habitats. Corals were either identified *in situ* or collected for study at the Australian Institute of Marine Science. Regions studied (from north to south) were (1) Ashmore and Cartier Reef (1986, with the Western Australian Museum), (2) Scott and Seringapatam Reefs (1984, with the Western Australian Museum), (3) Rowley Shoals (1982, with the Western Australian Museum), (4) Dampier Archipelago (1983, with the Western Australian Department of Conservation and Environment), (5) the Ningaloo Reef Tract (1985, with the Western Australian Department of Conservation and Land Management), (6) Houtman Abrolhos Islands (1983, 1984 and 1987 with the Western Australian Museum, the CSIRO Marine Laboratories, Perth and the Australian Institute of Marine Science (respectively)) and (7) the coastline between Perth and Port Gregory (1983, with the Western Australian Museum).

Results from expeditions to Scott Reef, Seringapatam Reef and Rowley Shoals (2 and 3, above) are in Veron (1986a).

General descriptions of all Australian species are given in Veron 1986b. Abundance and variations of growth form or colour applicable to Western Australia are noted below. Several species recorded from Western Australia in Veron 1986b are not included in the present study where no reference specimen has been retained.

All specimens resulting from the above expeditions have been deposited in the Western Australian Museum. During 1983-87, all specimens in the museum were incorporated into the present study, which includes notes on taxonomic problems encountered.

### Geographical Background

Western Australia, (Figure 1) occupying the western third of the Australian continent, has a coastline of 12,500km spanning nearly 22° of latitude, between 13°30'S and 35°08'S, one third of it lying within the tropics. This long coastline covers a great diversity of habitat types; in the north the Kimberley has a rugged ria coast while between Broome and Port Hedland the coast is mainly low and sandy; the Pilbara has a predominantly low-lying coast with tidal flats and mangroves broken by several headlands and by the rugged coast of the Dampier area.

The continental shelf off north-western Australia (the North West Shelf) varies in width from 38km at North West Cape to 354km off Cape Jaubert and covers an area of over 660,000km<sup>2</sup>. It is sometimes divided into the Sahul Shelf (Molengraaff and Weber, 1919; Fairbridge 1953) between Cape Leveque (16°20'S, 123°E) and Melville Island (131°E) and the Rowley Shelf (Fairbridge 1953) between North West Cape and Cape Leveque. Fairbridge (1967) gives an overview of Western Australia reefs, including the North West shelf reefs and the Houtman Abrolhos Is.

The North West Shelf provides the base for a great variety of coral habitats: atolls that rise beyond the shelf-edge, platform reefs, submerged coral banks and fringing reefs around many of the coastal islands. On the coast itself rocky substrates usually support coral communities.

North West Cape provides a major point of change in the coast, dividing the calm waters of Exmouth Gulf from the open sea off the west coast where a part barrier, part fringing reef (the Ningaloo Reef) extends southwards from North West Cape. The west coast is predominantly a carbonate coastline and is subjected to strong wave action except where protected by offshore limestone reefs. Coral communities occur at Point Quobba and in the outer parts of Shark Bay but the most flourishing reefs off the west coast occur at the Houtman Abrolhos Is. off Geraldton.

The coral fauna diminishes rapidly south of the Houtman Abrolhos Is., but coral communities occur on nearshore reefs and around islands such as Rottnest Island off Fremantle. South of Rottnest Island there is another decrease in the coral fauna but some species flourish in Geographe Bay and a few continue, in suitable habitats, along the south coast to the Recherche Archipelago east of Esperance.

The south coast is also subject to strong wave action but has a more varied topography than the west coast, with granite or gneiss headlands alternating with sandy bays, some of which provide sheltered water.

The localities at which coral collections have been made are described in more detail below.

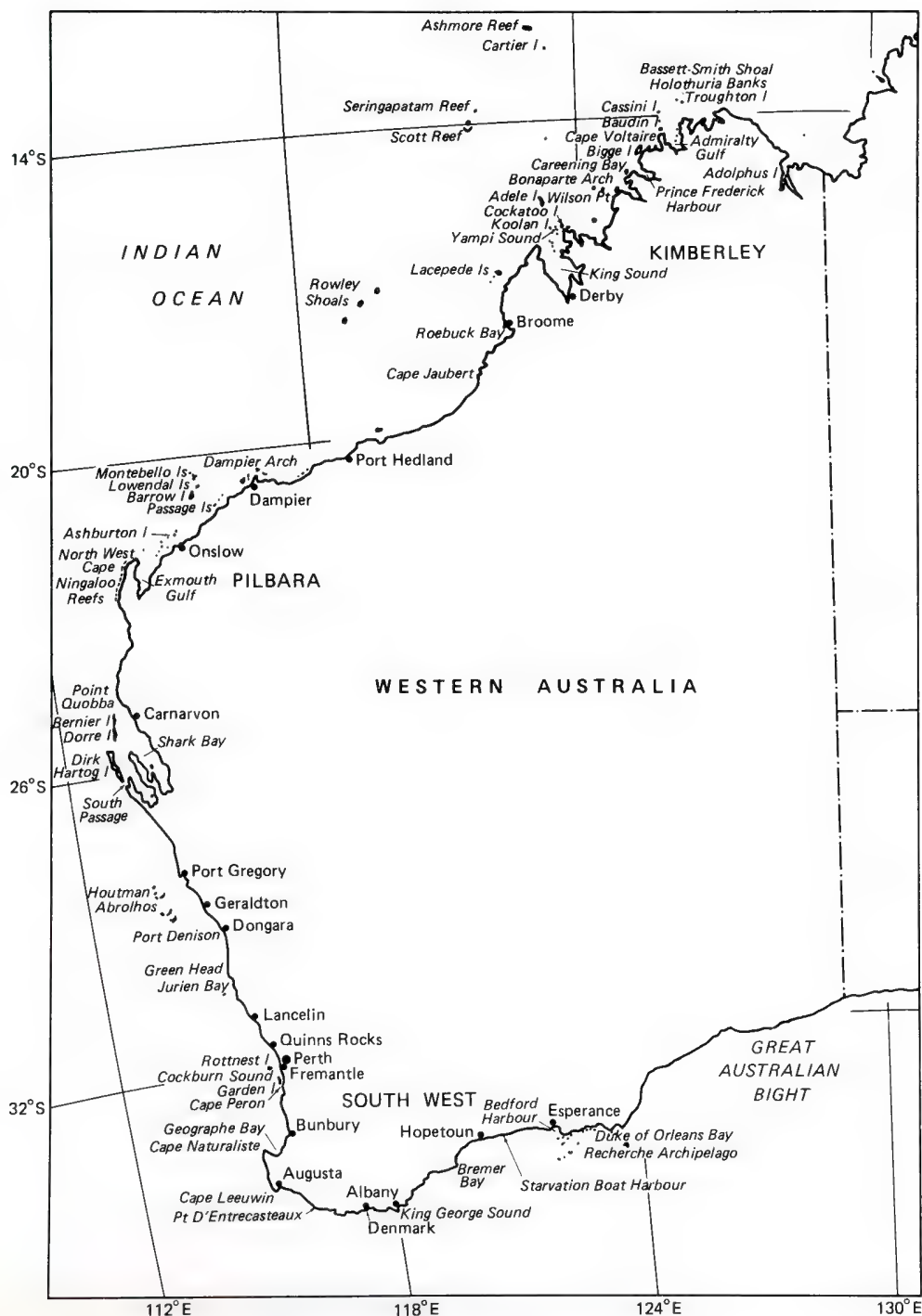


Figure 1. Map of Western Australia showing localities mentioned in the text.

## Climate

The coastal climate ranges from tropical monsoonal in the Kimberley, tropical semi-arid in the Pilbara to Mediterranean and temperate in the south. The northern half of the state is subject to cyclones which develop mainly in the months of January to March and less frequently in November, December and April. Cyclones affecting Western Australia generally form in the Arafura and Timor Seas between latitudes 5° and 20°S. In the ten year period 1975 to 1985 twenty-five tropical cyclones affected north-western Australia and five of these also affected the coast south of Carnarvon (Anon 1983, 1986). Perturbation due to cyclonic activity must have a significant influence on coral reefs in north-western Australia, particularly on those near the coast.

## Currents

Currents off the coast of Western Australia are anomalous compared to those along other eastern oceanic boundaries in the southern hemisphere where there is upwelling of nutrient rich water and northward flowing cold currents.

Warm waters off the west coast were first recorded by Saville-Kent (1897) who measured a sea temperature difference of c. 7°C between the Houtman Abrolhos and Geraldton and postulated that a warm current was responsible for the luxuriant growth of corals, particularly *Acropora* spp. at the Abrolhos.

Dakin, while Professor of Biology at the University of Western Australia, noted Saville-Kent's observations on differences in fauna and water temperatures between the Houtman Abrolhos Islands and the adjacent mainland. He obtained support from the Percy Sladen Trust to conduct expeditions in 1913 and 1915 to the Houtman Abrolhos to investigate the structure and formation of the coral islets and to collect information on their fauna, flora and hydrology (Dakin 1919).

Dakin arranged for simultaneous sea surface temperature readings to be taken at Geraldton and the Houtman Abrolhos Is. over a few days in November and found the island temperatures to be 2-3°C higher than those at Geraldton (whereas Saville-Kent recorded a 7-8°C difference in mid winter). Dakin supplemented his observations with records from coastal ships and plotted the isotherms for June 1911 finding "that a definite tongue of warmer water extends down the coast of West Australia, the tip reaching to about the Abrolhos Islands", separated from the coast by a distinct zone of cooler water. Thus Dakin supported Saville-Kent's hypothesis that a warm current was responsible for the flourishing coral reefs at the Houtman Abrolhos.

Details of the current were not established until the use of satellite-tracked buoys in the 1970s. The current was described and named the Leeuwin Current by Cresswell and Golding (1980) and the description was augmented by infrared imagery from environmental satellites (Legeckis and Cresswell 1981). Maxwell and Cresswell (1981) recorded the occurrence of several demersal and pelagic tropical species in the Great Australian Bight and suggested that the Leeuwin Current is responsible for the presence of these species.

"The Leeuwin Current can be described as a band of warm, low-salinity water of tropical origin about 50km wide and some 200m deep that flows southward, mainly

above the continental slope from Exmouth to Cape Leeuwin. At Cape Leeuwin it pivots eastward, spreads onto the continental shelf and flows towards the Great Australian Bight, carrying with it a variety of tropical species of marine fauna" (Pearce and Cresswell 1985). The driving force for the Leeuwin Current is believed to be the flow of warm, low-salinity water from the western central Pacific Ocean through deep passages in the Indonesian Archipelago into the Timor Sea and eastern Indian Ocean. Wyrski (1957) described the water exchange between Pacific and Indian Oceans in relation to upwelling processes and calculated the mean annual transport from the Pacific to the Indian Ocean of  $1.3 \times 10^6 \text{ m}^3 \text{ s}^{-1}$  in the upper 200m (Wyrski 1961). Godfrey and Golding (1981), also from oceanographic data, calculated the throughflow at  $10 \times 10^6 \text{ m}^3 \text{ s}^{-1}$  which was revised to  $5 \times 10^6 \text{ m}^3 \text{ s}^{-1}$  by Godfrey and Ridgway (1984). Fine (1985) using bomb tritium data gave direct evidence for a mean net transport (in the upper 300m) of  $5 \times 10^6 \text{ m}^3 \text{ s}^{-1}$  from the Pacific into the Indian Ocean.

Godfrey and Ridgway (1985) suggested that the throughflow from the Pacific to the Indian Ocean may create the large (55cm) steric height gradient along the Western Australian west coast continental shelf edge which, in turn, results in the uniquely large poleward near-surface flow in the Leeuwin Current which accelerates directly into the prevailing wind.

The current varies seasonally being weaker in the summer (December to March) when the north-south sea-level gradient is weaker and the mean wind stress along the coast is strongly northwards. During the southern winter (May to August) the along-shore sea level gradient almost doubles and the wind stress is weaker and more variable. At this time the Leeuwin current is generally strong and well defined with jet-like streams along the shelf-break alternating with offshore meanders of warm core and cool core eddies (Pearce and Cresswell 1985).

Holloway and Nye (1985) showed that the Leeuwin current also flows strongly along the shelf break of the North West Shelf north of Dampier and North West Cape. The current is strongest between February and June. Reversals of the flow to the north-east are usually weak in strength and of short duration and are associated with strong south-west winds. The south-east trade winds (March-August) are shown to be inefficient in strengthening the Leeuwin current.

The flow from the Pacific through the Indonesian Archipelago to the Timor Sea provides a mechanism for larval transport of corals to the offshore atolls which in turn may provide a source for larvae to be entrained in the Leeuwin current and transported to the south.

Water movements through Torres Strait, summarized by Jennings (1972), may also be of significance for the distribution of marine organism in northern Australia. High temperature, low salinity water from the Arafura Sea and Gulf of Carpentaria passes through Torres Strait into the Coral Sea under the influence of the north-west monsoon (December to March). From April to December the stronger and more persistent south-east trades pile equatorial Pacific water against the shelf east of Torres Strait. The shallowness ( $< 30\text{m}$ ) of the Strait, however, limits the amount of water passing through. Thus there is limited potential for a two-way passage of pelagic larvae through Torres Strait.



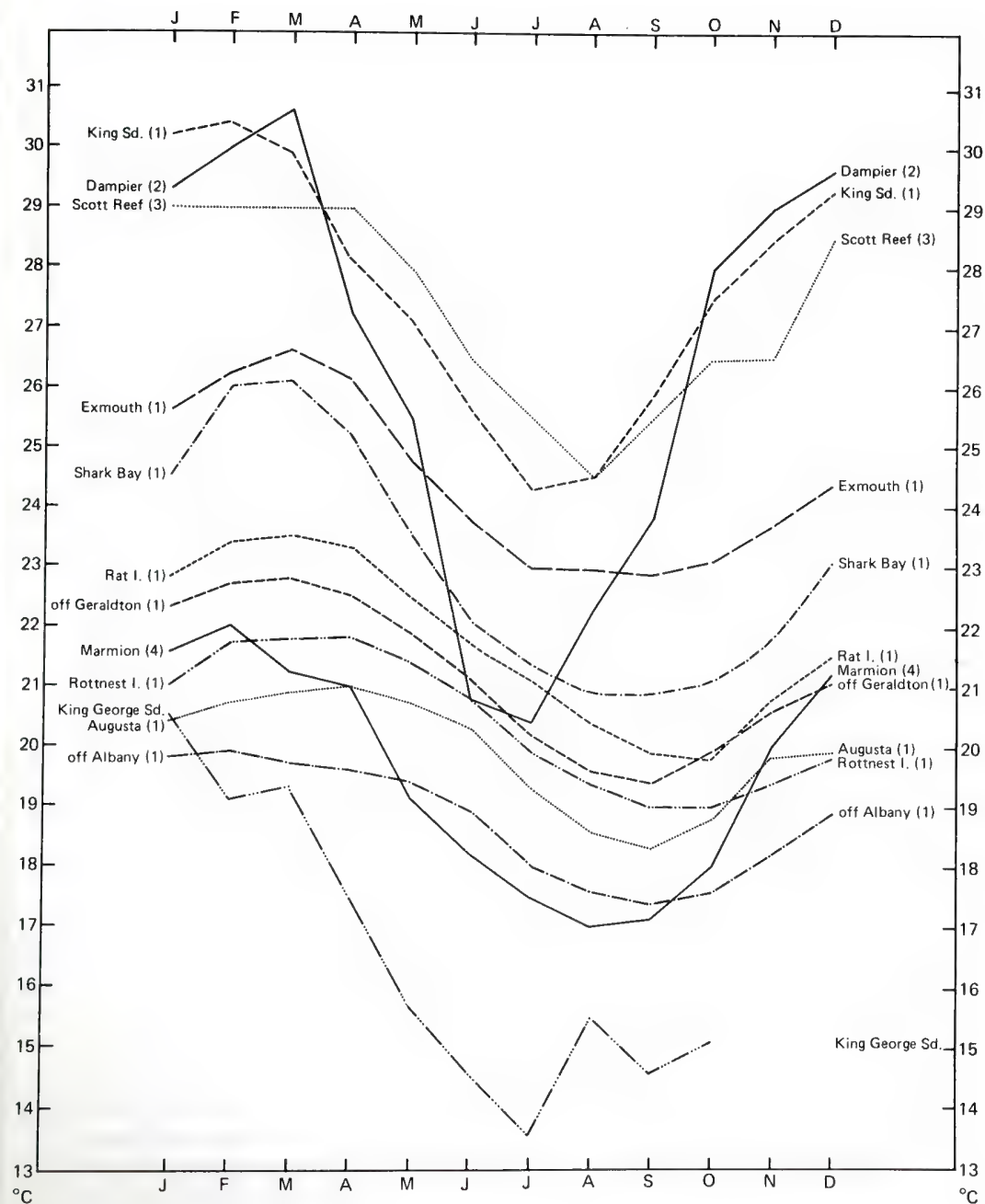
## Sea Surface Temperatures

The coastline of Western Australia spanning over 21° of latitude (nearly 23° including Ashmore Reef) from 13°44'S to 35°08'S is bathed by water of a correspondingly wide temperature range. Figure 2 gives mean monthly temperature curves for areas representative of all parts of the coast and some of the offshore reefs while Table 1 gives mean maxima and minima with some extreme values, where available. It will be evident that in some areas e.g. the Dampier Archipelago corals may be stressed at both ends of their thermal tolerance while at Albany very low temperatures are tolerated. The data are from a number of sources, some from long-term observations while others are from single-year studies or limited observations. Error bars have been omitted from the curves but will be found in the source publications.

**Table 1:** Sea surface temperatures off Western Australia

	Maximum °C			Minimum °C		
	Mean	Extreme	Month	Mean	Extreme	Month
Scott Reef <sup>1</sup>	29.0		Jan/April	24.5		Aug
Kuri Bay <sup>2</sup>	31		April	26		July
80 Mile Beach <sup>2</sup>	31.2		April	19.4		July
Dampier Archipelago <sup>3</sup>	31.2	32.5	Feb	20.2	18.0	July
North Rankin <sup>4</sup>	30		March/April	24		July
Montebello Is. <sup>1</sup>	29.3		March	22.7		Aug
Ningaloo Reef <sup>5*</sup>	26.1	29.8	Dec	22.1	20.0	Oct
Houtman Abrolhos						
West Reef <sup>6</sup>	24.6					
West Lagoon <sup>6</sup>	23.8	25.7	Feb	19.8	17.8	Sept
Geraldton (6 n. miles off) <sup>7</sup>	22.8		Jan/March	19.4		Sept
Dongara						
Inshore <sup>7</sup>	25			18.5		
Offshore <sup>7</sup>	23			19.5		
Rottne I. (55m. stn) <sup>7</sup>	21.8		March/April	19.0		Sept/Oct
Rottne I. (inshore) <sup>8</sup>	23.5		Feb	18.5		Aug
Fremantle (5 n. miles off) <sup>9</sup>	22.9		March	15.7		July
Marmion <sup>10</sup>	22.0	23.4	Jan/Feb	17.0	16.0	July/Sept
Cockburn Sound <sup>9</sup>	23.2	26.7	Feb	15.2	12.8	Aug
Albany (55 m. stn)	20.1		Jan	17.3		Sept
King George Sound	20.5		Jan/Feb	13.6		July

Sources: 1. P. Chalmer (pers. comm.); 2. Dybdahl and Pass (1985); 3. Simpson (1985); 4. Holloway and Nye (1985); 5. Simpson and Masini (1986)\* limited records; 6. Hatcher (pers. comm.); 7. Pearce (1986); 8. Hutchins (in press); 9. Hodgkin and Phillips (1969); 10. Pearce *et al.* (1985)



**Figure 2** Monthly mean sea temperatures off Western Australia.  
Sources: 1. Pearse (1986); 2. Simpson (1985); 3. Chalmer (pers. comm.); 4. Pearse *et al.* (1985).

## Tides

Although most corals live sub-tidally they may be considerably influenced by tidal cycles.

Western Australia has as much variability in tidal regimes as in other physical parameters. The tides vary from semi-diurnal mega-tides on the Kimberley coast to predominantly diurnal micro-tides in the south-west of the state. The maximum tidal range of 11 metres occurs in the Broome-Derby area and the range decreases east and west from there, to 7.9m at Darwin, and 2.7m at North West Cape (Anon 1979). On the Kimberley coast strong currents during spring tides mobilize fine sediment causing extreme turbidity of inshore waters and milkiness of the water for some distance offshore.

On the Pilbara coast the mean spring tidal range of 5.6m is sufficient to cause strong currents and considerable turbidity during the spring tide cycle.

The offshore atolls (the Rowley Shoals, Scott and Seringapatam Reefs), bathed by clear oceanic water, experience semi-diurnal tides with a spring range of about 4.5m (Berry and Marsh 1986).

On the west side of North West Cape the tidal amplitude decreases to a semi-diurnal meso-tidal range of  $< 2\text{m}$  (Simpson and Masini 1986). The Cape divides the somewhat turbid waters of Exmouth Gulf from the clear oceanic water bathing the Ningaloo Reefs.

From Geraldton to the south coast of Western Australia there are mixed diurnal/semi-diurnal tides with a micro-tidal range of  $< 1.5\text{m}$ , usually  $< 1\text{m}$  (Hodgkin and Di Lollo 1958). On the west and south coasts the tide has little influence on turbidity but the tidal cycles may have significance for coral reproduction.

## Locality Descriptions

### Scott Reef

Scott Reef (Sandy Islet  $14^{\circ}0.3'S$ ,  $121^{\circ}45'E$ ) lies approximately 435km north of Broome and rises from the Scott Reef/Rowley Shoals Platform beyond the shelf edge at 400-700m depth (Berry and Marsh 1985, 1986).

Scott Reef consists of two separate atolls, North Reef and South Reef. North Reef (16.3km by 14.4km) is an annular structure enclosing a lagoon, with a maximum depth of 21m, connected to the ocean by two passages. The reef rim is up to 1650m broad. Coral collections were made from lagoon knolls, back reef areas on the western and north-eastern sides and outer slopes on the north-eastern side.

South Reef is crescent-shaped with the 'arms', 27km apart, subtending North Reef from which it is separated by a channel 400-700m deep. The open lagoon of South Reef is between 35 and 55m deep. Most collections were made from a detached reef surrounding an unvegetated cay, Sandy Islet. The reef flat east and west of the islet and reef slopes on the north-western, western and eastern sides were sampled. Corals were also collected from a lagoon knoll, lagoon slope and two reef flat areas of South Reef.

The reefs are bathed by clear oceanic water and have a tidal range of about 4.5m. The reefs were mapped from landsat imagery (Berry and Marsh 1985, 1986).

### **Seringapatam Reef**

Seringapatam Reef (13°40'S, 121°59'E) was described from aerial photographs by Teichert and Fairbridge (1948) and from surface observations by Wilson (1985). Berry and Marsh (1986) used Landsat imagery to map the reef.

Seringapatam Reef lies about 25km north-east of North Scott Reef. It is an annular reef 8km by 9.4km enclosing a lagoon, with a maximum depth of 30m, connected to the ocean by a narrow passage in the north-east. The reef varies from 1200 to 1500m in width. Where examined (on the south side) there is a well developed boulder zone on the reef crest, beyond which an algal covered platform slopes gently seaward. There is some living coral on the tops of spurs in the surf zone, and on the outer slope to about 30 metres.

Coral collections made during the Western Australian Museum expedition to Scott and Seringapatam Reefs (1984) yielded 213 species of 56 genera (Veron 1986a).

### **The Rowley Shoals**

Three atolls lying between 17°07'S, 119°36'E and 17°35'S, 118°56'E named Mermaid, Clerke and Imperieuse are collectively known as the Rowley Shoals. They rise from the Scott Reef/Rowley Shoals platform with a depth of 440 to 230m on their landward sides, and drop away to deeper water on the seaward side.

The reefs were described and mapped (Berry and Marsh 1985, 1986) from Landsat imagery and ground observations. The three reefs are oval, oriented approximately north-south and each has a passage or passages on the north east side. Fairbridge (1950a) described the reefs as the most perfect morphological examples of shelf atolls in Australian waters. Mermaid Reef (14.5km by 7.6km) has a 20m deep lagoon opening by a wide passage on the north-east side. Clerke Reef (15.8km by 7.6km) has a lagoon divided into three basins, none deeper than 10m. It is partly infilled by sand and mesh reef and opens by three narrow passages in the north-east. There is an unvegetated sand cay, Bedwell Island, near the northern end of the reef.

Imperieuse Reef (17.8km by 9.5km) was mapped from Landsat imagery but was not visited during the Western Australian Museum expedition of 1982. The lagoon appears to be largely infilled with sand and mesh reefs and opens by a very narrow, shallow passage on the north east side. There is a small, unvegetated sand cay near the northern end.

The Rowley shoals are bathed by clear oceanic water and have a similar semi-diurnal tidal cycle to Scott Reef with a spring range of about 4.5m. However, unlike Scott Reef, lagoon water is impounded by the rim at about half ebb tide and the entrapped water races through the passages, continuing to flow out until about half flood tide. Thus the water in the lagoons is held substantially above the outside water level at low tide.

During the 1982 Western Australian Museum expedition corals were sampled from lagoon knolls and the lagoon floor, reef flats and back reef areas at Mermaid and Clerke Reefs and the outer slopes on the north-east and north-western sides of Clerke Reef to a depth of 35m. The collections yielded 184 species of 52 genera, somewhat fewer than at Scott Reef. These are the first coral collections made from these reefs.

## The Sahul Shelf

Many platform reefs of various sizes rise from the continental shelf off the Kimberley coast, some with low sandy islands. The latter include the Lacepede Islands and Long Reef near the coast, Adele and Browse Islands on the mid shelf and Cartier and Ashmore reefs on the shelf edge. Other large platform reefs include the Holothuria Reefs (without islands) and Montgomery Reef with a group of small mainland islands. Of these, the coral fauna of Ashmore and Cartier reefs has been collected in some detail while there has been limited collecting from the Lacepede Islands and Adele Island. Small collections were made from some of the Kimberley reefs by the British Admiralty in the 19th century but the coral fauna of this large area is still very imperfectly known.

### Ashmore Reef

Ashmore Reef (12°17'S, 123°02'E) lies 350km off the Kimberley coast on the outer edge of the Sahul Shelf at the north-western extremity of the Londonderry Rise (Fairbridge, 1953). An extensive shoal area (<50m depth) extends about 12km eastwards from the reef before dropping to the general shelf level of <200m, while on the north-western and south-western sides the 50m platform is very narrow, dropping seawards to >300m.

The reef measures approximately 25km x 13.75km, with the long axis lying east-west. The reef is continuous along the western, southern and eastern sides where there is a broad windward reef crest but the northern side is broken by three broad passages leading into a shallow lagoon, most of it less than 5m deep with parts of the western lagoon dropping to c. 20m, with a number of small patch reefs and coral pinnacles. In the broad southern reef flat there are several small enclosed coral-fringed lagoons <5m deep. Three vegetated sand cays and numerous intertidal sand banks lie on the southern half of Ashmore Reef. Most of the reef flats are sandy, except for the outer edge, and have a very limited scleractinian coral fauna although the octocorals *Heliopora coerulea* and *Tubipora musica* are common. The lagoon knolls, passages and outer slopes have a diverse coral fauna.

During the Western Australian Museum expedition to Ashmore Reef (1980), collections were made from lagoon knolls, reef flats on the western, southern and northern sides and outer slopes on the northern and south-eastern sides of the reef. The coral fauna of Ashmore Reef is more diverse than any other single area sampled, with 255 species in 56 genera recorded.

### Cartier Island

Cartier Island (12°32'S, 123°33'E) is a small unvegetated sand cay in the centre of a small platform reef, lying south east of Ashmore Reef, and like the latter it also rises from the shelf edge. Cartier Reef has been described and mapped from aerial photographs by Teichert and Fairbridge (1948); the reef is oval, c. 4.6km long, oriented east-west with a continuous reef crest and no lagoon although there are several large isolated coral-fringed pools in the reef flat. Like Ashmore Reef the southern and western sides are exposed to most wave action.



The outer slopes on the north, east and south sides were examined as well as the reef flats north of the island.

### **Adele Island**

Adele Island (15°30'S, 123°09'E), 80km north-west of Cockatoo Island, is a vegetated cay lying in the centre of a roughly oval reef oriented in a general north to north-west, south to south-east direction. The reef is similar in size (c. 26km long) and shape to Ashmore Reef but rises from the inner shelf at c. 50m. It has been mapped and described in some detail by Teichert and Fairbridge (1948) from aerial photographs. Very limited collecting, from a narrow rim of living coral, exposed at LWS, on the northern edge of the reef, indicates a rich coral fauna.

Teichert and Fairbridge (1948) mapped a broad zone of submerged coral heads on the south-western side of the reef but this has not been examined.

### **Lacepede Islands**

Lying closest to the coast of the reefs visited, the three low, sandy, vegetated Lacepede Islands (16°52'S, 122°10'E) occur near the northern rim of a platform reef, c. 16km long, oriented north-west to south-east and lying c. 18km from the coast, separated from it by the Lacepede Channel. The surrounding sea is generally less than 20m deep and is usually fairly turbid.

Saville-Kent collected from the Lacepede Islands in the early 1890s and this reef is the type and only known locality of *Montigyra kenti* Matthai, 1928. This species has not been found in subsequent collecting.

A small collection was made from the outer slope on the south side of the reef. Ten species in 10 genera are recorded from the Lacepede Islands.

### **The Kimberley Coast**

The Kimberley region in the far north of Western Australia has a deeply dissected ria coastline (Semeniuk 1986) with numerous archipelagoes such as the Buccaneer Archipelago, the Bonaparte Archipelago and groups of islands lying near the coast. Many of the high islands have fringing reefs but the coral fauna is poorly known.

Bassett-Smith (1899) briefly described the reef at Troughton Island and recorded 15 genera of scleractinian corals together with the non scleractinian reef corals *Heliopora*, *Tubipora* and *Millepora*. This collection has not been examined.

Of the few mainland islands from which limited coral collections have been obtained, nine species of six genera are here recorded from Troughton Island, 14 species of seven genera from Cassini Island and 27 species of 20 genera from Yampi Sound (including Cockatoo and Koolan Islands). The coral fauna is probably seriously under-represented by these figures. Inshore waters of the Kimberley coast, such as Admiralty Gulf and Prince Frederick Harbour, lack coral reefs but coral communities occur, even in very turbid conditions where low spring tides expose corals e.g. *Catalaphyllia jardinei*, *Euphyllia* spp., *Oulastrea crispata* and *Duncanopsammia axifuga* on mud-covered rock substrates. Forty-one species of 24 genera of hermatypic corals are recorded from Admiralty Gulf while 102 species of 45 genera are now known from the Kimberley coast and nearshore reefs.

## Broome

Broome (17°58'S, 122°14'E) lies at the entrance to Roebuck Bay which is surrounded by tidal flats fringed by mangroves.

Gantheaume Point, Riddell Point and Entrance Point provide extensive intertidal rock substrate for a moderately diverse coral community but the sub-tidal area has not been investigated. Fifteen species of 10 genera are recorded from Broome.

## Dampier Archipelago

The Dampier Archipelago (20°32'S, 116°38'E), off the Pilbara coast, is an inundated landmass of groups of islands with rocky reefs, coral reefs and shoals, rising from a submarine plain at 5-20m depth (Semeniuk *et al.* 1982, Semeniuk 1986). The inner islands and the Burrup "peninsula" (an island joined to the mainland by mudflats) are composed of Precambrian igneous rocks with boulder shorelines continuing as subtidal slopes supporting a diverse coral community. Some of the outer islands such as Kendrew Island are composed of limestone with fringing intertidal platforms and coral reefs (Wilson and Marsh 1974). Lagoonal conditions occur between the Malus Islands and between Gidley and Legendre Islands.

The climate is tropical, semi-arid, with a 315mm annual rainfall (Gentilli 1972) and the area is subjected to periodic cyclones. A cyclone passes within 100km of the coastline every 2-3 years (Coleman 1971). Cyclones are responsible for heavy rainfall and increased wave action but freshwater input is limited since no major rivers empty into the immediate vicinity.

There is a mean spring tide range of 5.6m (Semeniuk *et al.* 1982) causing strong currents among the islands. The inshore waters are fairly turbid while the outer islands are bathed by moderately clear water.

The Dampier Archipelago provides a great diversity of habitats with a correspondingly diverse coral fauna. The seaward reefs of Delambre, Legendre, Rosemary and Kendrew Islands are exposed to considerable wave action whereas bays on the Burrup Peninsula, such as Withnell Bay, are extremely sheltered. There are shores with differing aspect, substrate, topography and slope and with varying current patterns, turbidity and temperature regimes. From the Dampier Archipelago, 216 species of 57 genera of hermatypic coral are recorded while 223 species of 57 genera are known from the region. Many species range from inshore to offshore habitats, but a small suite of species is confined to the turbid inshore waters and others are found only on the outer reefs. For example *Pocillopora eydouxi* and *Pavona minuta* were only found on the seaward reefs while the genera *Duncanopsammia*, *Caulastrea*, *Trachyphyllia*, *Moseleya* and *Euphyllia* were confined to the inshore habitats (Marsh 1978 and Paling 1986). Temporal and spatial variation in the growth rate of *Acropora formosa* is reported by Simpson (1985a) and mass spawning of scleractinian corals in the Dampier Archipelago by Simpson (1985b).

## Passage Islands

The Passage Islands (21°03'S, 115°49'E) are one group (and the only one collected) of an extensive chain of low sandy islands and reefs lying close to the Pilbara coast between the Dampier Archipelago and Exmouth Gulf.

Much of the adjacent coastline is low lying with tidal flats and mangroves. Although the hinterland is semi-arid there is considerable seasonal or irregular freshwater influx from the Fortescue and several smaller rivers, giving a high level of turbidity.

The Passage Islands are surrounded by silty-sand covered flats with scattered corals. Subtidally the coral fauna is similar to that of inshore areas of the Dampier Archipelago.

From limited collecting in the Passage Islands, 39 species of 23 genera are recorded.

### **Barrow Island**

Barrow Island (20°48'S, 115°24'E) lies 56km off the Pilbara coast, west of Dampier. The island, about 29km by 11km, is composed predominantly of Miocene limestones which form sea cliffs around much of the island. The northern and southern coasts are covered by Pleistocene deposits and Holocene dunes (McNamara and Kendrick 1983). There is a small area of coral reef on the mid-western side of the island and coral communities on the south and part of the east side. Limited collecting has yielded 25 species of 15 genera of hermatypic corals.

### **Montebello Islands**

The Montebello Islands (20°26'S, 115°33'E) lie north of Barrow Island on the same shallow platform. These are highly dissected low limestone islands protected on their western side by a barrier reef, the coral fauna of which has not been collected. Coral communities in a channel in the north of the group, among the middle islands, and off the south end of Hermite Island, yielded 61 species of 26 genera from fairly limited collecting.

### **Exmouth Gulf**

Bundegi Reef (21°51'S, 114°11'E) fringes the north-eastern side of North West Cape facing the sheltered waters of Exmouth Gulf. An extensive intertidal platform, covered with silty sand, has very little coral but subtidally there is a rich growth of coral although only 28 species of 10 genera were found there.

Patch reefs on the eastern side of the Gulf have not been examined.

### **Ningaloo Reefs**

Lying off the western side of the North West Cape peninsula between 21°47'S, 114°00'E and 23°38'S, 113°37'E the Ningaloo Reefs extend for approximately 230 kilometres. The reef edge lies from 200m to 7km offshore, so can best be described as a part fringing, part barrier reef. The Ningaloo Reefs are described and figured by May *et al.* (1983). This is the largest continuous reef area in Western Australia. The outer reef is of calcarenite probably of Pleistocene age (Geol. Survey W.A. unpubl.), similar in lithology to adjoining onshore sequences, the Bundera calcarenite (Van der Graaf *et al.* 1976) which extends from the Cape Range in the north to Quobba in the south. The living reef forms a thin veneer over the Pleistocene substrate in which fossil corals are exposed in places. Numerous passages lead into a shallow lagoon, 2-12m in depth, in which the

sand floor often only thinly covers a limestone pavement to which brown algae (*Sargassum* spp.) are attached in some areas. Ridges of fine grained calcarenite, possibly representing the lithified core of a Pleistocene beach ridge or dune (Geol. Survey W.A. unpubl.), and covered with a short algal turf provide habitat in the lagoon for a few species of coral, e.g. *Moseleya latistellata*, not found elsewhere on the Ningaloo Reefs.

The shoreline consists of narrow sand or rubble beaches interspersed with limestone platforms and low, undercut cliffs. The deeply dissected Cape Range forms the backbone of the North West Cape peninsula and short-term run-off from the range, via a number of temporary streams, is sufficient to maintain open passages through the reef, although the climate is semi arid.

The outer slope of the reef is somewhat dissected, with groove and spur structures in places. Outside the reef there is sand and rock substrate at 8-20 metres, sloping seawards. The shelf is very narrow off the northern half of the reef, the 200m contour lying within 4km of the coast near Norwegian Bay, while it is broader at the southern end of the reef where the shelf break lies 50km from the coast.

The outer edge of the reef is bathed by clear oceanic water and subjected to strong wave action. There is a nearly constant strong flow of water across the reef flats with longshore drainage and flow out through the passages that occur every few kilometres.

While the structural complexity of the reef is not as great as for example, in the Houtman Abrolhos it provides a number of habitats: the fore-reef (outer slope); reef flat (in some areas with c. 100% cover of living coral, predominantly *Acropora* spp. exposed only at the lowest spring tides) in others with an algal covered pavement but usually with a mixture of living and cemented dead coral; the back reef which varies from a broad expanse of coral and sand with a diverse coral fauna to extensive rubble sheets sloping gently to the lagoon. In other areas the back reef terminates in a vertical or undercut wall dropping several metres to the lagoon floor. *Porites* bommies and patches of staghorn *Acropora* occur in the deeper lagoons. At Coral Bay a diverse fauna of living coral has nearly filled the lagoon.

In the locality lists the Ningaloo Reef is divided into three sections: the northern Ningaloo Reef from the northern extremity of the reef, near North West Cape, to the reef passage off Yardie Creek; the middle Ningaloo Reef from Yardie Creek passage to the passage north of Point Maud and the southern Ningaloo Reef from Point Maud to the southern extremity of the reefs near Cape Farquhar.

From the Ningaloo Reef 217 hermatypic species of coral in 54 genera are now recorded.

## Shark Bay

Stretching from the north end of Bernier Island (24°45'S, 113°10'E) to its southernmost point at 26°36'S, 113°41'E Shark Bay is a large shallow embayment approximately 12,950km<sup>2</sup> in area with an average depth of 9m and a greatest depth of c. 25 metres. The bay is enclosed by Bernier, Dorre and Dirk Hartog Islands and is subdivided internally into numerous inlets, gulfs and basins by dune ridges and submerged banks (sills). Influx of oceanic water is through openings in the northern part of the outer island barrier and South Passage. The embayment is adjacent to a low-relief, arid to semi arid



hinterland; runoff influx is negligible and evaporation greatly exceeds precipitation. These factors, combined with the hydrologic structure of the water mass and restriction imposed by banks and sills, result in increasing gradients of salinity towards the closed southern parts of the embayment, from 36‰ in the north to 65‰ in the south (Logan and Cebulski 1970). The coral fauna is limited to waters of oceanic salinity, on the western side of the bay, on the east side of Bernier, Dorre and Dirk Hartog Islands and reaches its greatest development at the entrance to South Passage between the southern end of Dirk Hartog Island and the mainland.

At Point Quobba (24°29'S, 113°25'E) a very small coral reef fills a bay sheltered by the tied islet of Point Quobba, north of Carnarvon. There is a diverse coral fauna which has been little studied.

Eighty two species of coral of 28 genera are recorded from Shark Bay and the adjacent coast and islands with the greatest diversity in South Passage on shallow limestone and sand/rubble substrates. East of Dirk Hartog Island species richness is much less, the number of genera dropping from 27 in South Passage to 11 at Sunday Island (south east side of Dirk Hartog Island) and 3-4 along the east coast of Dirk Hartog Island and at the northern end of the Peron Peninsula in the north-central part of the bay.

Saville-Kent (1897) first drew attention to the luxuriant growths of *Turbinaria* spp. in Shark Bay and commented on the predominance of the genus in extra-tropical waters.

### **The Houtman Abrolhos**

The Houtman Abrolhos (between 28°16'S, 113°35'E and 29°S, 114°E) are the most southerly coral reefs in the Indian Ocean.

They comprise four groups of islands and reefs (North Island, the Wallabi Group, Easter Group and Pelsaert Group) lying close to the edge of the continental shelf about 63km off the mid west coast of Western Australia.

Living corals flourish on a foundation of Pleistocene coralline limestone forming extensive reefs around the islands. The islands themselves are built of coralline limestone, aggregated coral rubble and sand (with aeolianite in a few places) (Dakin 1919; Teichert 1947; Fairbridge 1948; Wilson and Marsh 1979). A vivid account of the reefs and corals is given by Saville-Kent (1897).

The seaward reefs, exposed to strong wave action have little coral on their outer platforms or seaward faces which are predominantly algal covered. Corals occur in back reef areas, in passages and form knolls and patch reefs in the western lagoons.

The large platform reefs, particularly in the more sheltered eastern half of the groups, are dissected by deep channels, lagoons and 'blue holes', reflecting an underlying karst topography. Inter group passages are the same depth as the shelf around the Abrolhos (30-40m) while many of the 'blue holes' reach 20-30 metres depth. The great topographic complexity and environmental diversity of these reefs provides habitats for an exceptionally diverse coral fauna. At present 184 species of 42 genera are recorded from the Houtman Abrolhos Islands.



## The South-west Coast

The geomorphology of carbonate coastlines of south-western Australia is described by Semeniuk and Johnson (1985). Corals occur sporadically in suitable habitats on near-shore carbonate reefs but rarely on inshore platforms.

At Port Gregory (28°12'S, 114°14'E) a limestone platform tied to the southern point of the bay, partly encloses a "lagoon". Predominantly along the inner edge of the platform is a coral community of 37 species of 13 genera.

South of Geraldton the coast is sandy with occasional limestone headlands. Coral communities occur around some of the limestone platforms which lie within a few kilometres of much of the coast between Dongara and Perth.

Limestone reefs off Port Denison (29°16'S, 114°55'E) have yielded 13 species of seven genera. In the Jurien Bay (30°15'S, 115°01'E) to Green Head (30°04'S, 114°58'E) area 11 species of eight genera are recorded. Jurien Bay is the southernmost nearshore locality at which *Acropora* spp. are recorded in Western Australia. The continental shelf narrows to less than 40km between Jurien Bay and Cervantes so this area may be influenced by the warm Leeuwin Current, which tends to flow along the shelf break.

In the Cervantes to Lancelin area (30°32'S to 31°00'S) 14 species of 11 genera have been found. Corals occur patchily, usually around nearshore islets, protected by offshore reefs.

Near Perth the Marmion lagoon (31°49'S, 115°43'E) is sheltered by a chain of reefs 2-4km off the coast. Numerous small, isolated rock platforms in the lagoon have yielded 10 species of hermatypic coral of 8 genera.

Rottneest Island (32°00'S, 115°31'E) lies about 20km west of Fremantle, its long axis oriented east-west. The island has an indented coastline with aeolianite headlands and shore platforms alternating with sandy bays. The geology is described by Teichert (1950) and Playford and Leech (1977). The water is clear and during winter the island is warmed by the Leeuwin current giving a higher minimum temperature than the adjacent mainland coast (table 1 and fig. 2). Rottneest Island has the best developed coral communities of any area of the temperate coast with 25 species of 16 genera represented. At Parker Point, on the south side of the island, *Pocillopora damicornis* form a small reef with a coral garden of *Montipora mollis*, *Alveopora fenestrata* and several laviid species nearby. At Salmon Point two colonies of *Acropora selago* were found in January 1988; *Porites lutea* is recorded from a single specimen found in the same area in 1973. This is the southernmost recorded occurrence of both species in Western Australia. The rock platform fauna and flora of Rottneest Island is discussed by Hodgkin, Marsh and Smith (1959) and Wells (1985).

The number of coral species drops rapidly south of Rottneest Island, with only seven genera and species recorded from Garden Island (32°12'S, 115°40'E).

Cockburn Sound (32°12'S, 115°43'E) is a semi-enclosed embayment between Garden Island and the mainland, with a greater temperature range and lower minimum temperature (15.2°C) than Rottneest Island (Hodgkin and Phillips 1969). Nevertheless, well developed coral communities occur on shallow seagrass covered sand and rubble banks on the western side and formerly on the eastern side; 16 species of ten genera are recorded from Cockburn Sound.

Hall Bank close to Fremantle has a similar coral fauna to that of Cockburn Sound.

Geographe Bay, sheltered from S.W. swells by Cape Naturaliste, (33°32'S, 115°00'E) has a number of areas of low-relief rocky substrate in depths of 5-20 metres providing substrate for corals among small macro-algae and seagrasses. Coral communities are particularly well developed between Dunsborough and Cape Naturaliste where 14 species of seven genera are recorded. Off Eagle Bay, near Cape Naturaliste, *Turbinaria* spp. form very large tiered coralla c. 3m in height while *Favites* and *Goniastrea* spp. also form large coralla. The endemic south Western Australian species *Symphyllia wilsoni* and *Coscinaraea marshae* are abundant in some areas at 15-20 metres.

### The South Coast

The south coast of Western Australia has a succession of granite or gneiss headlands with sandy beaches between while carbonate platforms lie across some of the smaller bays. The physiography of the Archipelago of the Recherche is described by Fairbridge and Serventy (1954).

Coral communities are found in moderately sheltered waters particularly in the outer part of King George Sound (35°03'S, 117°58'E) and in the Archipelago of the Recherche 33°48'S to 34°28'S, 121°37'E to 124°06'E). Seven species of four genera occur along the south coast including three (*Coscinaraea mcneilli*, *Plesiastrea versipora* and *Scolymia australis*) which extend across southern Australia (Shepherd and Veron 1982), and *C. marshae* which extends into South Australia. Three species of *Turbinaria* cover extensive areas in King George Sound and the Recherche Archipelago. *Symphyllia wilsoni* and *Favites* sp. have been found as beach worn specimens on the south coast and *Montipora* sp. has been photographed near Cape Leeuwin, the southernmost record of this genus.

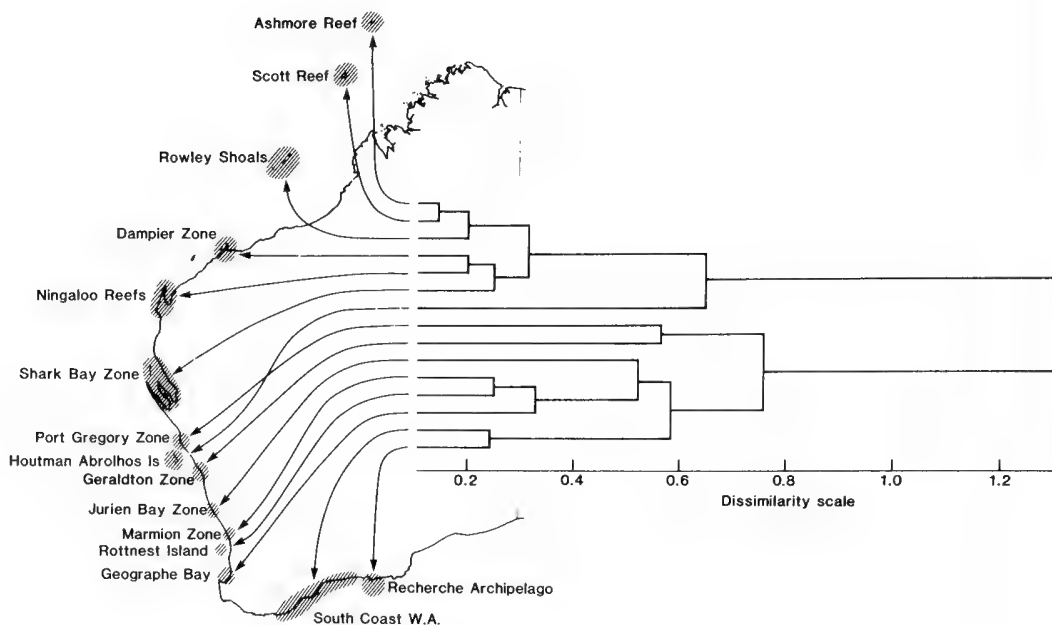
### Distribution Patterns

Species distribution records of principal geographic regions are summarised in Table 2.

Figure 3 indicates the relationship between each geographic region for which clearly representative data were obtained. The major division indicated by the dendrogram is between reefal and non-reefal regions.

Within the reefal regions, the major offshore reefs (Ashmore Reef, Scott Reef and Rowley Shoals) make up the first grouping, the more southerly onshore groups (Dampier Zone, Ningaloo Reefs and Shark Bay) make up the second. The third group, the Houtman Abrolhos Islands, is relatively distinct.

Within the non-reefal regions, the two northern-most (which have a relatively high diversity) and the two southern-most (which have a relatively low diversity) form relatively distinct groups.



**Figure 3** Agglomerative hierarchical classification of principal coral regions of Western Australia. Data used are the records in this publication (summarised in Table 2), with the exception of the Kimberley Coast and Lancelin Region, for which data are considered incomplete. The classification, ordination and group diagnostic procedures are components of the PATN package of Belbin (1987), using the Bray-Curtis dissimilarity coefficient and flexible unweighted pair mean averages.

**TABLE 2.** Summary of the distribution of reef corals in principal geographic zones of Western Australia

	Ashmore Reef	Scott Reef	Rowley Shoals	Kimberley Coast	Dampier Zone	Ningaloo Reefs	Shark Bay Zone	Houtman Abrolhos Is.	Port Gregory Zone	Geraldton Zone	Jurien Bay Zone	Lancelin Zone	Rottnest I.	Marmion Zone	Geographic Bay	South Coast W.A.	Recherche Archipelago
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
<i>Acanthastrea bowerbanki</i>	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Acanthastrea echinata</i>	X	X	X	—	X	X	X	X	—	—	—	—	—	—	—	—	—
<i>Acanthastrea hillae</i>	—	—	—	—	—	X	X	X	—	—	—	—	—	—	—	—	—
<i>Acanthastrea lordhowensis</i>	—	—	—	—	X	—	—	—	—	—	—	—	—	—	—	—	—
<i>Acrhelia horrescens</i>	X	X	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Acropora abrolhosensis</i>	X	X	X	—	X	X	—	X	—	—	—	—	—	—	—	—	—
<i>Acropora aculeus</i>	—	—	X	—	X	X	—	X	X	—	—	—	—	—	—	—	—
<i>Acropora acuminata</i>	X	—	—	—	—	—	—	X	—	—	—	—	—	—	—	—	—
<i>Acropora anthocercis</i>	X	X	—	—	X	X	—	X	—	—	—	—	—	—	—	—	—
<i>Acropora aspera</i>	X	—	—	X	X	X	X	X	—	—	—	—	—	—	—	—	—
<i>Acropora austera</i>	X	X	X	—	X	X	—	—	—	—	—	—	—	—	—	—	—
<i>Acropora brueggemanni</i>	X	X	X	X	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Acropora bushyensis</i>	—	—	—	—	—	—	X	—	—	—	—	—	—	—	—	—	—
<i>Acropora caroliniana</i>	X	—	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Acropora cerealis</i>	X	X	X	—	X	X	—	X	—	—	—	—	—	—	—	—	—
<i>Acropora clathrata</i>	X	X	X	X	X	X	—	—	—	—	—	—	—	—	—	—	—
<i>Acropora cytherea</i>	X	X	X	—	X	X	—	—	—	—	—	—	—	—	—	—	—
<i>Acropora danai</i>	X	X	X	—	X	X	—	—	—	—	—	—	—	—	—	—	—
<i>Acropora dendrum</i>	—	—	—	—	X	—	—	X	—	—	—	—	—	—	—	—	—
<i>Acropora digitifera</i>	X	X	X	X	X	X	X	X	X	—	—	—	—	—	—	—	—
<i>Acropora divaricata</i>	X	X	—	—	X	X	—	—	—	—	—	—	—	—	—	—	—
<i>Acropora donei</i>	X	X	X	X	—	—	—	X	—	—	—	—	—	—	—	—	—
<i>Acropora elseyi</i>	X	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Acropora exquisita</i>	X	X	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Acropora florida</i>	X	X	X	—	X	X	X	X	—	—	—	—	—	—	—	—	—
<i>Acropora formosa</i>	X	X	X	X	X	X	—	X	—	—	—	—	—	—	—	—	—
<i>Acropora gemmifera</i>	X	X	X	—	X	—	—	—	—	—	—	—	—	—	—	—	—
<i>Acropora glauca</i>	X	—	X	—	X	—	—	X	X	X	—	—	—	—	—	—	—
<i>Acropora grandis</i>	X	X	X	—	X	X	—	X	X	—	—	—	—	—	—	—	—
<i>Acropora granulosa</i>	X	X	X	—	—	X	—	X	—	—	—	—	—	—	—	—	—
<i>Acropora horrida</i>	X	X	X	—	X	X	—	X	—	—	—	—	—	—	—	—	—
<i>Acropora humilis</i>	X	X	X	—	X	—	—	—	—	—	—	—	—	—	—	—	—
<i>Acropora hyacinthus</i>	X	X	X	X	X	X	X	X	—	—	X	—	—	—	—	—	—

TABLE 2. continued.

	Ashmore Reef	Scott Reef	Rowley Shoals	Kimberley Coast	Dampier Zone	Ningaloo Reefs	Shark Bay Zone	Houtman Abrolhos Is.	Port Gregory Zone	Geraldton Zone	Jurien Bay Zone	Lancelin Zone	Rottnest I.	Marmion Zone	Geographic Bay	South Coast W.A.	Recherche Archipelago
<i>Acropora latistella</i>	X	X	X	X	X	X	X	X	—	—	—	—	—	—	—	—	—
<i>Acropora listeri</i>	—	—	—	—	X	—	—	—	—	—	—	—	—	—	—	—	—
<i>Acropora longicyathus</i>	X	X	X	—	—	X	—	—	—	—	—	—	—	—	—	—	—
<i>Acropora loripes</i>	X	—	—	—	—	X	—	—	—	—	—	—	—	—	—	—	—
<i>Acropora lovelli</i>	—	—	—	—	X	—	—	X	—	—	—	—	—	—	—	—	—
<i>Acropora microclados</i>	—	—	X	—	—	X	—	—	—	—	—	—	—	—	—	—	—
<i>Acropora microphthalma</i>	X	X	X	X	X	X	—	X	—	—	—	—	—	—	—	—	—
<i>Acropora millepora</i>	X	X	X	X	X	X	X	X	—	—	X	—	—	—	—	—	—
<i>Acropora monticulosa</i>	X	X	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Acropora nana</i>	X	X	X	—	X	X	—	—	—	—	—	—	—	—	—	—	—
<i>Acropora nasuta</i>	X	X	X	—	X	X	—	X	—	—	—	—	—	—	—	—	—
<i>Acropora nobilis</i>	X	X	X	—	X	X	—	X	—	—	—	—	—	—	—	—	—
<i>Acropora palifera</i>	X	X	X	—	X	—	—	—	—	—	—	—	—	—	—	—	—
<i>Acropora paniculata</i>	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Acropora polystoma</i>	—	—	—	—	X	—	—	—	—	—	—	—	—	—	—	—	—
<i>Acropora pulchra</i>	X	X	X	X	X	X	X	X	—	—	—	—	—	—	—	—	—
<i>Acropora robusta</i>	X	X	X	—	X	X	X	X	—	—	—	—	—	—	—	—	—
<i>Acropora samoensis</i>	X	X	X	—	X	—	—	—	—	—	—	—	—	—	—	—	—
<i>Acropora sarmentosa</i>	—	—	—	—	X	X	—	X	—	—	—	—	—	—	—	—	—
<i>Acropora selago</i>	X	X	X	—	X	X	—	X	X	—	—	—	X	—	—	—	—
<i>Acropora solitaryensis</i>	X	—	X	X	X	—	X	X	X	X	—	—	—	—	—	—	—
<i>Acropora spicifera</i>	—	—	—	—	X	X	X	X	—	—	—	—	—	—	—	—	—
<i>Acropora stoddarti</i>	—	X	X	—	X	—	—	X	—	—	—	—	—	—	—	—	—
<i>Acropora subglabra</i>	X	X	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Acropora subulata</i>	X	X	X	—	X	X	—	X	X	—	—	—	—	—	—	—	—
<i>Acropora tenuis</i>	X	X	X	—	X	X	—	X	—	—	—	—	—	—	—	—	—
<i>Acropora tortuosa</i>	—	—	—	—	X	—	—	X	—	—	—	—	—	—	—	—	—
<i>Acropora valenciennesi</i>	X	X	—	—	X	X	—	X	—	—	—	—	—	—	—	—	—
<i>Acropora valida</i>	X	X	X	—	X	X	X	X	—	—	—	—	—	—	—	—	—
<i>Acropora vaughani</i>	—	X	X	—	—	X	—	X	—	—	—	—	—	—	—	—	—
<i>Acropora verweyi</i>	X	—	—	—	X	X	X	X	—	—	—	—	—	—	—	—	—
<i>Acropora willisae</i>	—	X	—	—	—	X	—	X	—	—	—	—	—	—	—	—	—
<i>Acropora yongei</i>	X	X	X	—	X	X	—	X	X	—	—	—	—	—	—	—	—
<i>Acropora</i> sp. 1	—	—	—	—	—	—	—	X	—	—	—	—	—	—	—	—	—
<i>Alveopora allingi</i>	—	X	X	X	—	X	X	X	—	—	—	—	—	—	—	—	—



TABLE 2. continued.

	Ashmore Reef	Scott Reef	Rowley Shoals	Kimberley Coast	Dampier Zone	Ningaloo Reefs	Shark Bay Zone	Houtman Abrolhos Is.	Port Gregory Zone	Geraldton Zone	Jurien Bay Zone	Lancelin Zone	Rottnest I.	Marmion Zone	Geographe Bay	South Coast W.A.	Recherche Archipelago
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
<i>Alveopora catalai</i>	X	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Alveopora fenestrata</i>	X	—	X	X	X	X	—	X	—	X	—	—	X	—	—	—	—
<i>Alveopora gigas</i>	—	—	—	—	—	—	—	X	—	—	—	—	—	—	—	—	—
<i>Alveopora spongiosa</i>	X	X	X	—	—	X	X	X	—	—	—	—	—	—	—	—	—
<i>Alveopora tizardi</i>	—	—	X	—	—	—	X	X	—	—	—	—	—	—	—	—	—
<i>Alveopora verrilliana</i>	X	X	—	—	—	X	—	X	—	—	—	—	—	—	—	—	—
<i>Anacropora puertogalerae</i>	—	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Astreopora explanata</i>	X	X	X	—	X	X	—	X	—	—	—	—	—	—	—	—	—
<i>Astreopora gracilis</i>	X	X	—	—	X	—	—	X	—	—	—	—	—	—	—	—	—
<i>Astreopora myriophthalma</i>	X	X	X	—	X	X	—	X	—	—	—	—	—	—	—	—	—
<i>Astreopora ocellata</i>	X	—	—	X	X	X	—	X	—	—	—	—	—	—	—	—	—
<i>Australomussa rowleyensis</i>	X	X	X	—	X	—	—	X	—	—	—	—	—	—	—	—	—
<i>Barabattoia amicum</i>	—	—	—	X	X	X	—	X	—	—	—	—	X	—	—	—	—
<i>Blastomussa merleti</i>	—	—	—	—	X	—	—	X	—	—	—	—	—	—	—	—	—
<i>Blastomussa wellsi</i>	—	—	—	—	—	—	—	X	—	—	—	—	—	—	—	—	—
<i>Catalaphyllia jardinei</i>	X	—	—	X	X	—	—	—	—	—	—	—	—	—	—	—	—
<i>Caulastrea furcata</i>	X	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Caulastrea tumida</i>	—	—	—	X	X	—	—	—	—	—	—	—	—	—	—	—	—
<i>Coeloseris mayeri</i>	X	X	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Coscinaraea columna</i>	X	X	—	X	X	X	X	X	—	—	X	—	—	—	—	—	—
<i>Coscinaraea exesa</i>	—	—	X	—	X	X	—	X	—	—	—	—	—	—	—	—	—
<i>Coscinaraea marshallae</i>	—	—	—	—	—	—	—	X	—	—	—	—	X	—	X	X	X
<i>Coscinaraea mcneilli</i>	—	—	—	—	—	—	—	—	—	—	X	X	X	X	X	X	X
<i>Cycloseris costulata</i>	X	X	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Cycloseris cyclolites</i>	X	—	—	X	X	—	X	—	—	—	—	—	—	—	—	—	—
<i>Cycloseris marginata</i>	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Cycloseris noumeae</i>	—	—	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Cycloseris patelliformis</i>	—	—	—	—	X	—	—	X	—	—	—	—	—	—	—	—	—
<i>Cycloseris sinensis</i>	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Cycloseris vaughani</i>	X	X	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Cyphastrea chalcidicum</i>	X	X	X	—	—	X	—	—	—	—	—	—	—	—	—	—	—
<i>Cyphastrea microphthalma</i>	X	X	X	X	X	X	X	X	X	—	—	—	—	—	—	—	—
<i>Cyphastrea serailia</i>	X	X	X	X	X	X	X	X	X	—	—	X	X	X	—	—	—
<i>Cyphastrea sp. 1</i>	—	X	—	—	—	X	—	—	—	—	—	—	—	—	—	—	—
<i>Diaseris distorta</i>	—	—	—	—	—	—	—	X	—	—	—	—	—	—	—	—	—

TABLE 2. continued.

	Ashmore Reef	Scott Reef	Rowley Shoals	Kimberley Coast	Dampier Zone	Ningaloo Reefs	Shark Bay Zone	Houtman Abrolhos Is.	Port Gregory Zone	Geraldton Zone	Jurien Bay Zone	Lancelin Zone	Rottnest I.	Marmion Zone	Geographic Bay	South Coast W.A.	Recherche Archipelago
<i>Diaseris fragilis</i>	—	—	—	—	—	—	X	X	—	—	—	—	—	—	—	—	—
<i>Diploastrea heliopora</i>	X	X	X	—	X	X	—	—	—	—	—	—	—	—	—	—	—
<i>Duncanopsammia axifuga</i>	—	—	—	X	X	X	X	—	—	—	—	—	—	—	—	—	—
<i>Echinophyllia aspera</i>	X	X	—	—	X	X	X	X	—	—	—	—	—	—	—	—	—
<i>Echinophyllia echinata</i>	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Echinophyllia orpheensis</i>	X	X	X	—	X	X	X	X	—	—	—	—	—	—	—	—	—
<i>Echinopora gemmacea</i>	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Echinopora hirsutissima</i>	X	X	—	—	X	—	—	—	—	—	—	—	—	—	—	—	—
<i>Echinopora horrida</i>	X	X	X	—	X	X	—	—	—	—	—	—	—	—	—	—	—
<i>Echinopora lamellosa</i>	X	X	X	—	X	X	—	—	—	—	—	—	—	—	—	—	—
<i>Echinopora mammiiformis</i>	—	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Echinopora sp. 1</i>	X	—	—	—	X	—	—	—	—	—	—	—	—	—	—	—	—
<i>Euphyllia ancora</i>	X	X	X	—	X	X	—	—	—	—	—	—	—	—	—	—	—
<i>Euphyllia cristata</i>	—	—	X	—	X	—	—	—	—	—	—	—	—	—	—	—	—
<i>Euphyllia divisa</i>	—	—	—	—	X	—	—	X	—	—	—	—	—	—	—	—	—
<i>Euphyllia glabrescens</i>	X	X	X	X	X	X	—	X	—	—	—	—	—	—	—	—	—
<i>Favia favius</i>	X	X	X	X	X	X	X	X	—	—	—	—	X	—	—	—	—
<i>Favia helianthoides</i>	X	X	—	—	—	X	—	—	—	—	—	—	—	—	—	—	—
<i>Favia laxa</i>	X	X	X	—	—	—	—	X	—	—	—	—	—	—	—	—	—
<i>Favia lizardensis</i>	X	X	X	—	X	—	—	X	—	—	—	—	—	—	—	—	—
<i>Favia matthaii</i>	X	X	X	—	X	X	—	X	—	—	—	—	—	—	—	—	—
<i>Favia maxima</i>	X	X	X	—	X	X	—	X	—	—	—	—	—	—	—	—	—
<i>Favia pallida</i>	X	X	X	X	X	X	—	X	—	—	—	—	—	—	—	—	—
<i>Favia rotumana</i>	X	X	X	—	X	—	—	—	—	—	—	—	—	—	—	—	—
<i>Favia rotundata</i>	X	X	—	—	X	X	—	X	—	—	—	—	—	—	—	—	—
<i>Favia sp. 1</i>	—	—	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Favia speciosa</i>	X	X	X	X	X	X	—	—	—	—	—	—	—	—	—	—	—
<i>Favia stelligera</i>	X	X	X	—	X	X	—	—	—	—	—	—	—	—	—	—	—
<i>Favia veroni</i>	X	—	—	—	X	—	—	X	—	—	—	—	—	—	—	—	—
<i>Favites abdita</i>	X	X	—	X	X	X	X	X	X	X	—	—	X	—	X	—	—
<i>Favites chinensis</i>	X	—	—	X	X	X	X	X	—	—	—	—	—	—	—	—	—
<i>Favites compianata</i>	X	X	—	X	X	X	—	X	—	—	—	—	X	X	X	—	—
<i>Favites flexuosa</i>	X	—	—	X	X	X	—	X	X	—	—	—	X	—	—	—	—
<i>Favites halicora</i>	X	X	X	X	X	X	—	X	—	—	—	—	—	—	—	—	—
<i>Favites pentagona</i>	X	X	X	X	X	X	X	X	X	—	—	X	—	—	—	—	—

TABLE 2. continued.

	Ashmore Reef	Scott Reef	Rowley Shoals	Kimberley Coast	Dampier Zone	Ningaloo Reefs	Shark Bay Zone	Houtman Abrolhos Is.	Port Gregory Zone	Geraldton Zone	Jurien Bay Zone	Lancelin Zone	Rottnest I.	Marmion Zone	Geographic Bay	South Coast W.A.	Recherche Archipelago
<i>Favites russelli</i>	X	X	X	—	—	X	X	X	X	—	—	—	X	—	—	—	—
<i>Favites</i> sp. 1	—	—	—	—	—	X	—	X	—	—	—	—	—	—	—	—	—
<i>Fungia concinna</i>	X	X	—	X	X	X	—	—	—	—	—	—	—	—	—	—	—
<i>Fungia echinata</i>	X	X	—	X	—	X	—	—	—	—	—	—	—	—	—	—	—
<i>Fungia fungites</i>	X	X	X	X	X	X	—	—	—	—	—	—	—	—	—	—	—
<i>Fungia granulosa</i>	X	X	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Fungia horrida</i>	X	X	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Fungia klunzingeri</i>	X	—	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Fungia paumotensis</i>	X	X	X	—	X	—	—	—	—	—	—	—	—	—	—	—	—
<i>Fungia repanda</i>	X	X	X	X	X	X	—	X	—	—	—	—	—	—	—	—	—
<i>Fungia scruposa</i>	X	X	—	—	X	—	—	—	—	—	—	—	—	—	—	—	—
<i>Fungia scutaria</i>	X	X	X	—	—	X	—	—	—	—	—	—	—	—	—	—	—
<i>Fungia simplex</i>	X	X	X	X	X	X	—	—	—	—	—	—	—	—	—	—	—
<i>Fungia valida</i>	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Galaxea astreata</i>	X	X	X	X	X	X	—	—	—	—	—	—	—	—	—	—	—
<i>Galaxea fascicularis</i>	X	X	X	X	X	X	—	X	—	—	—	—	—	—	—	—	—
<i>Gardineroseris planulata</i>	X	X	X	—	X	X	—	—	—	—	—	—	—	—	—	—	—
<i>Goniastrea aspera</i>	X	X	—	X	X	X	X	X	X	—	X	X	X	X	X	—	—
<i>Goniastrea australensis</i>	—	—	—	X	X	X	X	X	X	X	X	X	X	X	X	—	—
<i>Goniastrea edwardsi</i>	X	X	X	—	X	X	X	X	—	—	—	—	—	—	—	—	—
<i>Goniastrea favulus</i>	X	X	—	—	X	X	X	X	—	—	—	—	—	—	—	—	—
<i>Goniastrea palauensis</i>	X	X	—	—	X	X	—	X	—	—	—	—	X	—	—	—	—
<i>Goniastrea pectinata</i>	X	X	X	X	X	X	X	X	—	—	—	—	—	—	—	—	—
<i>Goniastrea retiformis</i>	X	X	X	X	X	X	—	—	X	—	—	—	—	—	—	—	—
<i>Goniastrea</i> sp. 1	—	—	—	—	—	—	—	X	—	—	—	—	—	—	—	—	—
<i>Goniopora columna</i>	X	X	—	—	X	X	—	X	—	—	—	—	—	—	—	—	—
<i>Goniopora djiboutiensis</i>	—	X	X	—	X	—	—	X	—	—	—	—	—	—	—	—	—
<i>Goniopora lobata</i>	X	X	—	X	X	X	X	—	—	—	—	—	—	—	—	—	—
<i>Goniopora minor</i>	X	X	X	X	X	X	—	—	—	—	—	—	—	—	—	—	—
<i>Goniopora palmensis</i>	—	—	X	—	X	—	—	—	—	—	—	—	—	—	—	—	—
<i>Goniopora pandoraensis</i>	X	—	—	X	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Goniopora pendulus</i>	X	—	—	X	X	—	—	X	—	—	—	—	X	—	—	—	—
<i>Goniopora somaliensis</i>	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Goniopora stokesi</i>	X	—	—	—	X	—	—	X	X	—	—	—	—	—	—	—	—
<i>Goniopora stutchburyi</i>	X	—	X	X	X	—	X	X	—	—	—	—	—	—	—	—	—

TABLE 2. continued.

	Ashore Reef	Scott Reef	Rowley Shoals	Kimberley Coast	Dampier Zone	Ningaloo Reefs	Shark Bay Zone	Houtman Abrolhos Is.	Port Gregory Zone	Geraldton Zone	Jurien Bay Zone	Lancelin Zone	Rottne I.	Marmion Zone	Geographe Bay	South Coast W.A.	Recherche Archipelago
<i>Goniopora tenuidens</i>	X	X	X	X	X	X	X	X	X	—	—	—	—	—	—	—	—
<i>Goniopora</i> sp. 1	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Goniopora</i> sp. 2	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Goniopora</i> sp. 3	—	—	X	—	X	X	—	—	—	—	—	—	—	—	—	—	—
<i>Heliofungia actiniformis</i>	X	X	—	X	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Herpolitha limax</i>	X	X	X	X	X	X	—	—	—	—	—	—	—	—	—	—	—
<i>Herpolitha weberi</i>	X	—	X	X	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Heteropsammia cochlea</i>	—	—	—	—	X	X	—	X	X	—	—	—	—	—	—	—	—
<i>Hydnophora exesa</i>	X	X	X	X	X	X	X	X	—	—	—	—	—	—	—	—	—
<i>Hydnophora microconos</i>	X	—	—	X	X	X	—	—	—	—	—	—	—	—	—	—	—
<i>Hydnophora pilosa</i>	X	X	—	—	X	X	X	X	—	—	—	—	—	—	—	—	—
<i>Hydnophora rigida</i>	X	X	X	—	X	X	—	—	—	—	—	—	—	—	—	—	—
<i>Leptastrea bottae</i>	X	—	—	—	—	X	—	—	—	—	—	—	—	—	—	—	—
<i>Leptastrea inaequalis</i>	X	X	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Leptastrea pruinosa</i>	X	X	X	X	X	X	—	X	—	—	—	—	—	—	—	—	—
<i>Leptastrea purpurea</i>	X	X	X	X	X	X	—	X	—	—	—	—	—	—	—	—	—
<i>Leptastrea transversa</i>	X	X	X	X	—	X	—	—	—	—	—	—	—	—	—	—	—
<i>Leptastrea</i> sp. 1	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Leptoria phrygia</i>	X	X	X	X	X	X	—	—	—	—	—	—	—	—	—	—	—
<i>Leptoseria explanata</i>	X	X	X	—	—	X	—	X	—	—	—	—	—	—	—	—	—
<i>Leptoseria foliosa</i>	X	X	—	—	—	X	—	X	—	—	—	—	—	—	—	—	—
<i>Leptoseria hawaiiensis</i>	X	X	X	—	—	X	—	X	—	—	—	—	—	—	—	—	—
<i>Leptoseria incrustans</i>	X	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Leptoseria mycetoseroides</i>	X	X	X	—	—	X	X	X	—	—	—	—	—	—	—	—	—
<i>Leptoseria papyracea</i>	—	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Leptoseria scabra</i>	X	X	X	—	—	X	—	X	—	—	—	—	—	—	—	—	—
<i>Leptoseria yabei</i>	X	X	X	—	—	X	—	X	—	—	—	—	—	—	—	—	—
<i>Lithophyllon edwardsi</i>	X	X	—	—	X	X	—	—	—	—	—	—	—	—	—	—	—
<i>Lobophyllia corymbosa</i>	X	—	—	X	X	X	—	X	—	—	—	—	—	—	—	—	—
<i>Lobophyllia diminuta</i>	—	—	—	—	—	X	—	—	—	—	—	—	—	—	—	—	—
<i>Lobophyllia hataii</i>	X	X	X	—	X	X	—	X	—	—	—	—	—	—	—	—	—
<i>Lobophyllia hemprichii</i>	X	X	X	X	X	X	—	X	—	—	—	—	—	—	—	—	—
<i>Merulina ampliata</i>	X	X	X	X	X	X	—	X	—	—	—	—	—	—	—	—	—
<i>Merulina scabricula</i>	X	X	X	—	X	X	—	—	—	—	—	—	—	—	—	—	—
<i>Montastrea annuligera</i>	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

TABLE 2. continued.

	Ashmore Reef	Scott Reef	Rowley Shoals	Kimberley Coast	Dampier Zone	Ningaloo Reefs	Shark Bay Zone	Houtman Abrolhos Is.	Port Gregory Zone	Geraldton Zone	Jurien Bay Zone	Lancelin Zone	Rottne I.	Marmion Zone	Geographic Bay	South Coast W.A.	Recherche Archipelago
<i>Montastrea curta</i>	X	X	X	X	X	X	X	X	X	-	-	-	-	-	-	-	-
<i>Montastrea magnistellata</i>	X	X	X	-	X	X	X	X	-	-	-	-	-	-	-	-	-
<i>Montastrea valenciennesi</i>	X	X	X	X	X	X	X	X	-	-	-	-	-	-	-	-	-
<i>Montigrya kenti</i>	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Montipora aequituberculata</i>	X	X	X	-	X	X	X	X	X	-	-	-	-	-	-	-	-
<i>Montipora angulata</i>	-	X	-	-	-	X	X	X	-	-	-	-	-	-	-	-	-
<i>Montipora australiensis</i>	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-
<i>Montipora calcarea</i>	-	-	-	-	X	X	-	-	-	-	-	-	-	-	-	-	-
<i>Montipora caliculata</i>	X	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-
<i>Montipora capricornis</i>	-	-	-	-	-	X	X	X	-	-	-	-	-	-	-	-	-
<i>Montipora crassituberculata</i>	-	-	-	-	X	X	-	X	-	-	-	-	-	-	-	-	-
<i>Montipora danae</i>	X	X	X	-	X	X	-	X	-	-	-	-	-	-	-	-	-
<i>Montipora digitata</i>	X	X	-	X	X	X	-	X	-	-	-	-	-	-	-	-	-
<i>Montipora efflorescens</i>	X	X	X	X	X	X	-	X	-	-	-	-	-	-	-	-	-
<i>Montipora floweri</i>	X	X	X	-	-	X	-	-	-	-	-	-	-	-	-	-	-
<i>Montipora foliosa</i>	X	X	X	-	-	X	-	X	-	-	-	-	-	-	-	-	-
<i>Montipora foveolata</i>	X	X	X	-	X	X	X	-	-	-	-	-	-	-	-	-	-
<i>Montipora grisea</i>	X	X	X	-	X	X	-	X	X	-	-	-	-	-	-	-	-
<i>Montipora hispida</i>	X	X	-	-	X	X	X	X	-	-	-	-	-	-	-	-	-
<i>Montipora hoffmeisteri</i>	X	X	X	-	X	X	-	X	-	-	-	-	-	-	-	-	-
<i>Montipora incrassata</i>	-	X	-	-	X	-	-	X	-	-	-	-	-	-	-	-	-
<i>Montipora informis</i>	X	X	X	-	-	X	-	X	-	-	-	-	-	-	-	-	-
<i>Montipora millepora</i>	X	-	X	X	X	X	-	-	-	-	-	-	-	-	-	-	-
<i>Montipora mollis</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-
<i>Montipora monasteriata</i>	X	X	X	-	X	X	X	-	-	-	-	-	-	-	-	-	-
<i>Montipora nodosa</i>	-	X	-	-	X	-	-	X	-	-	-	-	-	-	-	-	-
<i>Montipora peltiformis</i>	X	-	X	X	X	X	X	X	X	-	-	-	-	-	-	-	-
<i>Montipora spongodes</i>	X	-	-	X	X	-	X	X	X	X	-	-	-	-	-	-	-
<i>Montipora spumosa</i>	X	X	X	-	X	X	X	X	-	-	-	-	-	-	-	-	-
<i>Montipora stellata</i>	-	-	-	-	X	X	-	X	-	-	-	-	-	-	-	-	-
<i>Montipora tuberculosa</i>	-	X	-	-	X	X	X	-	-	-	-	-	-	-	-	-	-
<i>Montipora turgescens</i>	-	X	X	-	X	X	X	X	X	-	-	-	-	-	-	-	-
<i>Montipora turtlensis</i>	-	-	X	-	X	X	-	X	-	-	-	-	-	-	-	-	-
<i>Montipora undata</i>	X	X	X	-	X	X	-	-	-	-	-	-	-	-	-	-	-
<i>Montipora venosa</i>	X	X	-	X	X	X	-	-	-	-	-	-	-	-	-	-	-



TABLE 2. continued.

	Ashmore Reef	Scott Reef	Rowley Shoals	Kimberley Coast	Dampier Zone	Ningaloo Reefs	Shark Bay Zone	Houtman Abrolhos Is.	Port Gregory Zone	Geraldton Zone	Jurien Bay Zone	Lancelin Zone	Rottnest I.	Marmion Zone	Geographe Bay	South Coast W.A.	Recherche Archipelago
<i>Montipora verrucosa</i>	X	X	X	—	X	X	—	—	—	—	—	—	—	—	—	—	—
<i>Montipora</i> sp. 1	—	—	—	—	—	—	—	X	—	—	—	—	—	—	—	—	—
<i>Montipora</i> sp. 2	—	—	—	—	—	X	—	X	—	—	—	—	—	—	—	—	—
<i>Montipora</i> sp. 3	—	—	—	—	—	—	—	X	—	—	—	—	—	—	—	—	—
<i>Moseleya latistellata</i>	—	—	—	X	X	X	X	X	—	—	—	—	—	—	—	—	—
<i>Mycedium elephantotus</i>	X	X	X	—	X	X	—	X	—	—	—	—	—	—	—	—	—
<i>Mycedium robokaki</i>	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Oulastrea crispata</i>	—	—	—	X	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Oulophyllia bennettiae</i>	X	X	X	—	X	—	—	—	—	—	—	—	—	—	—	—	—
<i>Oulophyllia crispa</i>	X	X	X	—	X	X	—	—	—	—	—	—	—	—	—	—	—
<i>Oxypora glabra</i>	X	X	X	—	—	X	—	X	—	—	—	—	—	—	—	—	—
<i>Oxypora lacera</i>	X	X	X	—	X	X	X	X	—	—	—	—	—	—	—	—	—
<i>Pachyseris rugosa</i>	X	X	X	—	X	X	—	—	—	—	—	—	—	—	—	—	—
<i>Pachyseris speciosa</i>	X	X	X	—	X	X	—	X	—	—	—	—	—	—	—	—	—
<i>Palauastrea ramosa</i>	—	—	—	—	—	—	—	X	—	—	—	—	—	—	—	—	—
<i>Pavona cactus</i>	X	X	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Pavona clavus</i>	X	X	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Pavona decussata</i>	X	X	X	X	X	X	X	X	—	—	—	—	—	—	—	—	—
<i>Pavona explanulata</i>	X	X	X	—	X	X	X	X	—	—	—	—	—	—	—	—	—
<i>Pavona maldivensis</i>	X	X	X	—	—	X	—	X	—	—	—	—	—	—	—	—	—
<i>Pavona minuta</i>	X	X	X	—	X	X	X	X	—	—	—	—	—	—	—	—	—
<i>Pavona varians</i>	X	X	X	—	X	X	—	X	—	—	—	—	—	—	—	—	—
<i>Pavona venosa</i>	X	X	X	—	—	X	—	—	—	—	—	—	—	—	—	—	—
<i>Pavona</i> sp. 1	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Pectinia aldicornis</i>	X	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Pectinia lactuca</i>	X	X	X	—	X	X	—	—	—	—	—	—	—	—	—	—	—
<i>Pectinia paeonia</i>	X	X	—	X	X	X	—	—	—	—	—	—	—	—	—	—	—
<i>Pectinia teres</i>	X	X	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Physogyra lichtensteini</i>	X	X	X	—	X	X	—	—	—	—	—	—	—	—	—	—	—
<i>Platygyra daedalea</i>	X	X	X	X	X	X	X	X	—	—	—	—	—	—	—	—	—
<i>Platygyra lamellina</i>	X	X	—	X	X	X	X	X	X	X	—	—	—	—	—	—	—
<i>Platygyra pini</i>	X	X	X	—	X	X	X	—	—	—	—	—	—	—	—	—	—
<i>Platygyra ryukyuensis</i>	X	X	—	—	X	—	—	—	—	—	—	—	—	—	—	—	—
<i>Platygyra sinesis</i>	X	X	X	X	X	X	—	—	X	—	—	—	—	—	—	—	—
<i>Platygyra verweyi</i>	X	X	X	X	X	X	—	—	—	—	—	—	—	—	—	—	—

TABLE 2. continued.

	Ashore Reef	Scott Reef	Rowley Shoals	Kimberley Coast	Dampier Zone	Ningaloo Reefs	Shark Bay Zone	Houtman Abrolhos Is.	Port Gregory Zone	Geraldton Zone	Junien Bay Zone	Lancelin Zone	Rottnest I.	Marmion Zone	Geographic Bay	South Coast W.A.	Recherche Archipelago
<i>Plerogyra sinuosa</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Plesiastrea versipora</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Pocillopora damicornis</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Pocillopora eydouxi</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Pocillopora meandrina</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Pocillopora verrucosa</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Pocillopora woodjonesi</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Podabacia crustacea</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Polyphyllia talpina</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Porites cylindrica</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Porites eridani</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Porites heronensis</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Porites lichen</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Porites lobata</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Porites lutea</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Porites murrayensis</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Porites nigrescens</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Porites rus</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Porites solida</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Porites stephensoni</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Porites vauhani</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Porites sp. 1</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Porites sp. 2</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Porites sp. 3</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Psammocora contigua</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Psammocora digitata</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Psammocora explanulata</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Psammocora haimeana</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Psammocora nierstraszi</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Psammocora profundacella</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Psammocora superficialis</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Psammocora sp. 1</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Psammocora sp. 2</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Pseudosiderastrea tayamai</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Sandalolitha robusta</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

TABLE 2. continued.

	Ashmore Reef	Scott Reef	Rowley Shoals	Kimberley Coast	Dampier Zone	Ningaloo Reefs	Shark Bay Zone	Houtman Abrolhos Is.	Port Gregory Zone	Geraldton Zone	Jurien Bay Zone	Lancelin Zone	Rottnest I.	Marmion Zone	Geographic Bay	South Coast W.A.	Recherche Archipelago
				4	5	6	7	8	9	10	11	12	13	14	15	16	17
<i>Scapophyllia cylindrica</i>	X	X	X	—	X	X	—	X	—	—	—	—	—	—	—	—	—
<i>Scolymia australis</i>	—	—	—	—	—	—	—	—	—	—	—	—	X	—	X	X	—
<i>Seriatopora caliendrum</i>	X	—	—	X	—	X	—	—	—	—	—	—	—	—	—	—	—
<i>Seriatopora hystrix</i>	X	X	X	X	—	X	—	—	—	—	—	—	—	—	—	—	—
<i>Stylocoeniella armata</i>	—	X	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Stylocoeniella guentheri</i>	X	X	X	—	X	X	—	X	—	—	—	—	—	—	—	—	—
<i>Stylophora pistillata</i>	X	X	X	X	X	X	X	—	—	—	—	—	—	—	—	—	—
<i>Symphyllia agaricia</i>	X	X	X	—	X	X	—	—	—	—	—	—	—	—	—	—	—
<i>Symphyllia radians</i>	X	—	—	—	—	X	—	—	—	—	—	—	—	—	—	—	—
<i>Symphyllia recta</i>	X	X	X	X	X	—	—	—	—	—	—	—	—	—	—	—	—
<i>Symphyllia valenciennesi</i>	X	X	X	—	X	—	—	—	—	—	—	—	—	—	—	—	—
<i>Symphyllia wilsoni</i>	—	—	—	—	—	—	X	X	X	X	X	X	X	X	X	X	—
<i>Trachyphyllia geoffroyi</i>	—	—	—	X	X	—	—	—	—	—	—	—	—	—	—	—	—
<i>Turbinaria bifrons</i>	—	—	—	X	X	X	X	X	X	—	—	—	—	—	—	—	—
<i>Turbinaria conspicua</i>	—	—	—	X	X	X	X	X	—	X	—	—	—	—	—	—	—
<i>Turbinaria frondens</i>	X	X	X	X	X	X	X	X	X	X	—	X	X	X	X	X	—
<i>Turbinaria mesenterina</i>	X	—	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Turbinaria patula</i>	—	—	—	X	X	—	—	—	—	—	—	—	—	—	—	—	—
<i>Turbinaria peltata</i>	X	X	—	X	X	X	X	X	—	—	—	—	X	X	X	—	—
<i>Turbinaria radicalis</i>	—	—	—	—	—	—	—	X	—	—	—	—	—	—	—	—	—
<i>Turbinaria reniformis</i>	X	X	—	—	X	X	X	X	—	—	—	X	X	X	X	X	X
<i>Turbinaria stellulata</i>	X	X	X	—	X	X	—	X	—	—	—	—	—	—	—	—	—
<i>Turbinaria sp. 1</i>	—	—	—	—	X	—	X	—	—	—	—	—	—	—	—	—	—

### Records and Annotated Species List

Specimen numbers listed below are all registration numbers of the Western Australian Museum (WAM). Prior to 1930 specimens were numbered sequentially; after that year numbers commenced from one at the beginning of each year eg WAM 1-31, WAM 1024-85, thus the year is an integral part of the registration number. Where no registration number is given, the record is based on specimens from another collection or specimens identified by the authors from research collections, (EPA) indicates specimens in the research collection of Dr C.J. Simpson of the Western Australian Environmental Protection Authority. 'V' indicates that the record is a visual one only.

## FAMILY ASTROCOENIIDAE Koby, 1890

GENUS *STYLOCOENIELLA* Yabe & Sugiyama, 1935

There are no differences between western and eastern Australian *Stylocoeniella*.

*Stylocoeniella guentheri* (Bassett-Smith, 1890)

Veron and Pichon (1976): 38-41, figs. 45-49.

Uncommon except at the Houtman Abrolhos Is. Restricted to protected reefal environments. Usually small, cryptic, but sometimes forms large (<1.5m diam.) massive colonies with irregular surfaces. Dark brown or greenish-brown, in deeper water becoming pale brown.

Records: Ashmore Reef 729-86, 742-86, 766-86, 803-86 (outer slope, 10-20m)

Cartier Reef 761-86 (outer slope, 8-22m)

Scott Reef 570-85, 569-85, 566-85, 567-85 (lagoon 5-8m, outer slope)

Rowley Shoals 406-83, 155-84, 215-83, 426-83 (lagoon 1-18m)

Dampier Archipelago 422-78, 191-84, 193-84, 571-85 (2-5m)

Northwest Cape 452-81

Middle Ningaloo Reefs 925-85, 828-85 (lagoon 5-12m; outer slope 8-20m)

Wallabi Group (Houtman Abrolhos Is.) 249-78, 248-78, 52-88, 73-88, (21-31m)

Easter Group (Houtman Abrolhos Is.) 47-88.

*Stylocoeniella armata* (Ehrenberg, 1834)

Veron and Pichon (1976): 41-42, fig. 50.

Rare, cryptic, restricted to protected reefal environments. Variable mottled colours.

Records: Scott Reef 568-85 (lagoon 5-8m)

Rowley Shoals.

## FAMILY POCILLOPORIDAE Gray, 1842

GENUS *POCILLOPORA* Lamarck, 1816

Species of this very polymorphic genus have similar ranges of variation between western and eastern Australia.

*Pocillopora damicornis* (Linnaeus, 1758)

Veron and Pichon (1976): 45-48, figs. 52-68.

Very common throughout the distribution range and occurs over a wide range of environments from reef flats to deep water. Colonies from tropical localities are indistinguishable from Great Barrier Reef localities with similar environments. Reef flat colonies (Veron 1986b p. 73 fig. 5 at Ashmore Reef) are stunted, compact, and tolerant of long periods of emersion. Colonies from turbid water become very finely branched, superficially resembling *Seriatopora caliendrum*.

Large monospecific stands occur at Rottneest I. where colonies are hemispherical in shape with thick, tightly compacted branches. These closely resemble colonies at Sylph's Hole, Lord Howe Island.

Records: Ashmore Reef 700-86 (reef flat, 0m)

Cassini I. 503-84, 22-78

Cockatoo I. 525-85

Scott Reef V

Rowley Shoals V

Dampier Archipelago 199-73, 527-85, 1-72, 201-73, 101-73, 181-73, 95-73, 100-73, 202-73, 94-73, 92-73, 91-73, 200-73, 84-74 (reef flat, reef edge, outer slope, 0-8m)

Barrow I. 240-74 (back reef)  
 Montebello Is. 394-80 (3-4m)  
 Northern Ningaloo Reefs 64-81, 170-77, 171-77, 169-77 (reef flat, lagoon)  
 Middle Ningaloo Reefs 357-78 (lagoon)  
 Bernier I. 127-81, 128-81 (0-2m)  
 Dorre I. 122-81 (0-4m)  
 Dirk Hartog I. 28-59, 18-59, 557-79, 554-79 (0-2m)  
 North I. (Houtman Abrolhos Is.) 510-84, 520-85, 167-83, 528-85, 530-85 (outer slope)  
 Wallabi Group (Houtman Abrolhos Is.) 133-78, 521-85, 522-85, 523-85, 132-78, 531-85,  
 529-85 (reef flat; lagoon, 19m)  
 Easter Group (Houtman Abrolhos Is.) 57-73, 21-73, 36-73 (reef flat; 0-3m)  
 Pelsaert Group (Houtman Abrolhos Is.) 59-72  
 Port Gregory 115-58  
 Port Denison 524-85  
 Sandy Cape, 116-58 (reef flat)  
 Green Head 428-81, 116-58 (pool, 2-3m)  
 Jurien Bay V  
 Lancelin 22-88 (1-3m)  
 Rottnest I. 114-58, 78-85 (intertidal; 0-3m)  
 Marmion, 58-85, 526-85 (1-2m)  
 Garden I. 696-81.

***Pocillopora verrucosa*** (Ellis & Solander, 1786)

Veron and Pichon (1976): 48-52, figs. 69-79.

Common in tropical localities where colonies are indistinguishable from those of Great Barrier Reef localities with similar environments. Reef flat colonies (Veron 1986b, p. 74 fig. 2) are stunted, compact. Coralla have a purple-brown pigment in proximal branch skeleton.

Records: Ashmore Reef 809-86 (outer slope, 10-20m)  
 Scott Reef 81-78 (24m)  
 Rowley Shoals 232-83, 382-83, 224-83 (lagoon 1-8m, outer slope, 16-35m)  
 Dampier Archipelago 3-72, 2-72, 96-73, 93-73, 99-73, 203-73, 98-73, 355-78, 556-85 (reef flat, intertidal pool, reef edge; outer slope, 5-6m)  
 Montebello Is. 396-80 (3-4m)  
 Northern Ningaloo Reefs 2-81, 208-81 (reef flat; outer slope, 6m)  
 Middle Ningaloo Reefs 70-72, 24-78 (1-2m)  
 South Passage, Shark Bay 529-79 (3-4m)  
 Dirk Hartog I. 572-79, 571-79, 573-79, 556-79 (1-3m)  
 North I. (Houtman Abrolhos Is.) 533-85.

***Pocillopora meandrina*** Dana, 1846

Veron and Pichon (1982): 133-134, figs. 274-278.

Uncommon. Occurs on upper and lower reef slopes where colonies are indistinguishable from Great Barrier reef localities with similar environments. Difficult to distinguish from *P. verrucosa* except where both species occur together.

Records: Ashmore Reef V  
 Dampier Archipelago V  
 Northern Ningaloo Reefs 175-77 (reef flat)  
 Middle Ningaloo Reefs 25-78  
 North I. (Houtman Abrolhos Is.) 532-85 (outer slope)



***Pocillopora woodjonesi*** Vaughan, 1918  
Veron and Pichon (1976): 56-58, figs. 86-90.

Uncommon. Occurs on upper reef slopes (Veron 1986b p. 77, fig. 2 at Dampier Archipelago). Difficult to distinguish from *P. eydouxii* except where both species occur together.

Records: Cartier Reef 798-86 (outer slope, 8-22m)  
Scott Reef V  
Dampier Archipelago 200-84  
Middle Ningaloo Reefs 914-85, 884-85 (reef edge; outer slope, 8-20m)

***Pocillopora eydouxii*** Edwards & Haime, 1860  
Veron and Pichon (1976): 52-56, figs. 80-85.

Common in tropical localities, especially on upper reef slopes. A dominant species in some restricted shallow-water biotopes (Veron 1986b, p. 79, fig. 1 at the Dampier Archipelago) where colonies are hemi-spherical with compact branches. Uniform cream or brown in colour, sometimes with paler growing margins.

Records: Ashmore Reef 710-86 (outer slope, 6-14m)  
Scott Reef V  
Rowley Shoals 194-83, 475-83 (lagoon 1-8m; outer slope)  
Dampier Archipelago 365-84, 162-74, 93-73, 97-73, 102-73, 85-74 (reef edge, outer slope)  
Montebello Is. 393-80 (3-4m)  
Northern Ningaloo Reefs 176-77, 444-81 (reef flat; lagoon 2-5m)  
Middle Ningaloo Reefs 426-78, 425-78 (5m)  
South Passage, Shark Bay 528-79 (3-4m)

#### GENUS SERIATOPORA Lamarck, 1816

There are only minor intraspecific differences between western and eastern Australia as noted below.

***Seriatopora hystrix*** Dana, 1846  
Veron and Pichon (1976): 58-63, figs. 91-117.

Common in tropical localities, especially on reef flats (Veron, 1986b, p. 81, fig. 3 at Scott Reef) and upper slopes. Similar to Great Barrier Reef localities with similar environments except that intertidal reef flat colonies become unusually stunted, with short pointed branches. Gall crabs (*Haplocarcinus marsupialis*) occur in colonies throughout the species' range. Colours are usually pink or cream.

Records: Ashmore Reef 513-86 (outer slope, 8-20m)  
Cassini I. 7-78, 573-85  
Cockatoo I. 535-85  
Troughton I. 534-85  
Seringapatam Reef 367-79 (back reef)  
Scott Reef V (lagoon; reef slope)  
Rowley Shoals V  
Northern Ningaloo Reefs 443-81, 465-81, 174-77, 173-77, 4-81 (lagoon 2-9m)  
Middle Ningaloo Reefs 829-85 (lagoon, 5-12m)

***Seriatopora caliendrum*** Ehrenberg, 1834

Veron and Pichon (1976): 63-65, figs. 118-130.

Sometimes common in tropical localities, especially at the Ningaloo Reefs in passes between outer reefs. Colonies are usually <500mm diam. and are cream in colour.

Records: Ashmore Reef V

Koolan I. 536-85, 493-86

Ningaloo Reef Tract V

GENUS **STYLOPHORA** Schweigger, 1819

***Stylophora pistillata*** (Esper, 1797)

Veron and Pichon (1976): 66-70, figs. 133-150.

Common in most tropical localities from reef flats to lower slopes. Colonies occurring on lower slope and in lagoons are often very finely branched (Veron 1986b, p. 85, fig. 5 at Scott Reef), more so than usually seen in eastern Australia except the high latitude Elizabeth and Middleton Reefs. Colonies are usually cream or pink.

Records: Ashmore Reef 498-86, 581-86, 666-86, 708-86 (lagoon, 0-18m)

Scott Reef V

Rowley shoals V

Troughton I. 539-85, 541-85

Dampier Archipelago 409-78, 410-78, 537-85, 380-78, 86-74 (outer slope, 4-5m)

Montebello Is. 398-80 (3-4m)

Passage I. 380-80 (0-1m)

Northern Ningaloo Reefs 178-77, 190-81, 179-77, 177-77, 180-77, 76-81 (reef flat; lagoon; outer slope, 12-15m)

Middle Ningaloo Reefs 557-78, 538-85, 68-72 (reef flat; lagoon)

Dorre I. 124-81 (2-4m)

Dirk Hartog I. 566-79, 27-59 (0-4m)

South Passage, Shark Bay 553-79 (2m)

GENUS **PALAUASTREA** Yabe & Sugiyama, 1941

***Palauastrea ramosa*** Yabe & Sugiyama, 1941

Veron and Pichon (1976): 71-75, figs. 151-157.

Known only from a single locality at the Houtman Abrolhos Is. where it is abundant on a soft substrate at 35m depth.

Records: Houtman Abrolhos Is. 441-85 (inter-reef, 35m)

## FAMILY ACROPORIDAE Verrill, 1902

GENUS **MONTIPORA** de Blainville, 1830

Most species from NW Shelf reefs are indistinguishable from those of the Great Barrier Reef. Coralla from coastal and southern localities usually exhibit varying degrees of geographic variation. In some cases, especially some species from the Houtman Abrolhos Islands (eg. *M. mollis*, *M. turtlensis*, *M. spongodes*, *M. angulata* and *M. informis*), the degree of variation makes identification doubtful and suggests the presence of geographic subspecies.

***Montipora monasteriata*** (Forskål, 1775)

Veron and Wallace (1984): 14-18, figs. 3-12, 1101, 1102.

Cryptic, encrusting, common on NW Shelf reefs where it occurs on reef flats to lower slopes. Often brightly coloured in shallow water, pale cream, pink or brown in deeper water.

Records: Ashmore Reef 904-86 (lagoon, 0-6m)

Scott Reef 723-85, 737-85 (reef slope)

Rowley Shoals 364-83, 780-85, 253-83, 205-83, 204-83, 271-83, 299-83 (reef flat; lagoon, 1-8m and outer slope, 15-35m)

Dampier Archipelago (EPA)

Middle Ningaloo Reefs 806-85, 813-85

Bernier I. 130-81 (0-2m)

***Montipora tuberculosa*** (Lamarck, 1816)

Veron and Wallace (1984): 19-21, figs. 13-21, 1103-1105.

Usually cryptic and encrusting but may form explanate plates.

Records: Scott Reef 722-85, 726-85, 746-85 (lagoon, 5-8m; reef slope)

Dampier Archipelago 138-74, 142-74 (reef flat; outer slope)

Northern Ningaloo Reefs 15-81, 364-77 (reef flat; outer slope, 5m)

Shark Bay 383-79 (25m)

***Montipora hoffmeisteri*** Wells, 1954

Veron and Wallace (1984): 23, figs. 22-28, 1106, 1107, 1129.

Cryptic, encrusting, may be very common. Colonies are usually pale brown, but may have a wider colour range.

Records: Ashmore Reef 546-86, 607-86, 821-86, 835-86, 836-86, 842-86, 894-86 (lagoons, outer slopes, 3-20m)

Scott Reef 733-85, 741-85 (reef slope, 10-12m)

Rowley Shoals 316-83, 440-83, 220-83, 295-83, 433-83 (lagoon, 1-8m, outer slope, 10-35m)

Dampier Archipelago 479-78 (3-4m)

Middle Ningaloo Reefs 858-85 (lagoon, 5-12m)

Wallabi Group (Houtman Abrolhos Is.) 43-87, 44-87

***Montipora floweri*** Wells, 1954

Veron and Wallace (1984): 24-25, figs. 29-34, 1108.

Cryptic, uncommon. Colonies are usually dark coloured, sometimes with pale calices (Veron 1986b, p. 100 from Scott Reef).

Records: Ashmore Reef 485-86, 845-86, 850-86, 854-86, 863-86 (outer slope, 10-20m)

Scott Reef 767-85, 751-85 (reef slope)

Rowley Shoals 312-83, 307-83 (outer slope, 16-35m)

Middle Ningaloo Reefs 806-85, 813-85 (lagoon. 5-12m)

***Montipora millepora*** Crossland, 1952

Veron and Wallace (1984): 25-28, figs. 35-42, 1109.

Cryptic, uncommon. Colonies have a wide range of colours (Veron 1986b, p. 99 from Scott Reef).

Previous records from Western Australia: *Holothuria* Bank (as *M. pallida*) Bernard 1897

Records: Ashmore Reef 732-86, 797-86, 838-86, 891-86 (outer slope, 8-20m)

Kimberley coast

Rowley Shoals 456-83, 750-85 (outer slope, 10-30m)

Dampier Archipelago 331-84

Northern Ningaloo Reefs 36-81 (lagoon, 3m)

***Montipora mollis* Bernard, 1897**

Veron and Wallace (1984): 28-32, figs. 46-58.

The most common and widespread *Montipora* of Western Australia. Occurs on reef flats and lower reef slopes and is especially common at high latitude coastal localities. Colonies are encrusting and form irregular clumps, columns, whorls and plates. They are usually a uniform brown colour but occasionally bright blue or pink.

Previous records from Western Australia: Lacepede Is. (as *M. spumosa*) Bernard (1897); Houtman Abrolhos (as *M. multiformis*, BMNH 95.10.9.52 and 57 (types)) Bernard (1897); King Sound (as *m. multiformis*, BMNH 95.10.9.77-78) Bernard (1897)

Records: Ashmore Reef 759-86, 864-86 (lagoon, 1-5m)

Kimberley coast

Scott Reef V

Rowley Shoals V

Dampier Archipelago 772-85, 484-78, 744-85, 535-80, 328-84, 140-74, 14-72, 337-84, 334-84, 144-74 (reef flat; lagoon, 2-3m)

Passage Is. 486-80, 476-80 (2-5m)

Bundegi Reef, Exmouth Gulf

Northern Ningaloo Reefs 357-77, 359-77, 355-77 (reef flat)

Middle Ningaloo Reefs 73-72, 852-85, 811-85, 853-85, 807-85 (lagoon, 5-12m)

Bernier I.

Dorre I. 119-81,

North I. (Houtman Abrolhos Is.) 874-81, 884-81 (3m)

Wallabi Group (Houtman Abrolhos Is.) 331-78, 875-81, 203-74, 849-81, 183-74, 187-74, 380-77, 881-81, 879-81, 255-78, 335-78, 328-78, 36-87 (reef flat; lagoon, 1-12m and reef slope, 18-21m)

Easter Group (Houtman Abrolhos Is.) 38-73, 381-77, 74-73, 58-73, 10-73, 384-77, 29-73, 11-73, 35-73 (reef edge; lagoon, 3-9m and reef front, 3-5m)

Pelsaert Group (Houtman Abrolhos Is.) 885-81, 322-77, 34-78 (4-5m)

Houtman Abrolhos Is. 452-84, 465-84, 451-84, 450-84, 458-84, 467-84, 459-84, 468-84, 447-84, 466-84, 462-84, 469-84

Port Gregory 142-58, 143-58, 492-84, 496-84, 495-84, 589-84, 493-84, 718-84 (inner edge of reef)

Port Denison 488-84

Jurien Bay 69-85, 68-85, 67-85, 70-85 (lagoon)

Lancelin 162-81, 163-81

Rottne I. 125-58, 873-81, 7-84, 79-85, 87-85, 174-74, 960-85 (lagoon, 1-2m and reef front, 2-5m)

Perth 54-72, 62-85 (1-2m)

Fremantle 131-73 (2m)

Garden I. 703-81 (21m)

Geographe Bay 872-81 (20m)

***Montipora turtlensis* Veron & Wallace, 1984**

Veron and Wallace (1984): 32-37, figs. 59-71.

Sometimes common in turbid waters. Colonies are flat plates with nodular upward growths at their centres. Usually brown, green or purple with cream tips to nodules.

Records: Rowley Shoals 290-83, 376-83 (outer slope, 16-35m)

Dampier Archipelago 127-73 (reef flat)

Montebello Is. 48-80, 484-80 (lagoon, 2-4m)

Bundegi Reef, Exmouth Gulf 589-81 (2-4m)

Northern Ningaloo Reefs 12-81, 70-81 (back reef)  
Middle Ningaloo Reefs 859-85 (lagoon, 5-12m)  
Wallabi Group (Houtman Abrolhos Is.) 333-78, 332-78, 218-74 (2-9m)  
Houtman Abrolhos Is. 735-85

***Montipora peltiformis*** Bernard, 1897

Veron and Wallace (1984): 37-39, figs. 72-81

Uncommon. Occurs on shallow reef slopes.

Records: Ashmore Reef 528-86 (reef flat, 0m)  
Cassini I. 18-78  
Rowley Shoals 394-83 (lagoon, 9-18m)  
Dampier Archipelago 37-72 (intertidal pool)  
Barrow I. 244-74 (back reef)  
Northern Ningaloo Reefs 16-81, 361-77 (reef flat; lagoon, 3m)  
Middle Ningaloo Reefs 594-78 (reef flat)  
Dorre I. 851-81, 120-81 (0-4m)  
South Passage, Shark Bay 522-79 (8m)  
North I. (Houtman Abrolhos Is.) 797-81 (reef edge)  
Wallabi Group (Houtman Abrolhos Is.) 798-81, 888-81 (1-2m)  
Easter Group (Houtman Abrolhos Is.) 37-73 (3m)  
Pelsaert Group (Houtman Abrolhos Is.) 779-81 (1-2m)  
Port Gregory 752-85

***Montipora calcarea*** Bernard, 1897

Nothing is known of the variability of this species. Specimen 327-84 is close to the holotype, from Tonga.

Records: Dampier Archipelago 327-84  
Ningaloo Reef Tract V

***Montipora turgescens*** Bernard, 1897

Veron and Wallace (1984): 39-42, figs. 82-93, 1109

Common over a wide range of habitats, especially in turbid water. Colonies are usually massive, flat or columnar.

Previous records from Western Australia: N.W. Australia (BMNH 92.1.16.44) Bernard (1897)

Records: Scott Reef 764-85, 756-85 (lagoon, 5-18m)  
Rowley Shoals 209-83, 782-85, 214-83, 454-83, 785-85 (lagoon, 1-8m)  
Dampier Archipelago 76-74, 13-72 (intertidal pool; outer slope)  
Montebello Is.  
Passage Is. 850-81  
Bundegi Reef, Exmouth Gulf  
Northern Ningaloo Reefs 36-78, 351-77, 358-77, 353-77 (reef flat)  
Middle Ningaloo Reefs 852-85  
Bernier I. 824-81 (0-2m)  
Dorre I. 852-81 (0-4m)  
South Passage, Shark Bay 526-79, 527-79 (3-5m)  
Dirk Hartog I. 19-59 (0-1m)  
Port Gregory 497-84  
North I. (Houtman Abrolhos Is.) 870-81, 877-81, 878-81, 911-81 (3m)  
Wallabi Group (Houtman Abrolhos Is.) 196-74, 736-81, 871-81, 880-81, 882-81, 883-81, 890-81, 903-81, 35-87 (1-2m)



Easter Group (Houtman Abrolhos Is.) 26-73, 34-73, 45-73, 387-77 (reef flat, reef front, 1-2m)

Pelsaert Group (Houtman Abrolhos Is.) 886-81, 887-81 (reef flat)

***Montipora capricornis*** Veron, 1985

Veron (1985): 149-150, fig. 2.

*Montipora* sp. 2. Veron and Wallace (1984): 42-43, fig. 94-94, 1110.

Common only in lagoons and on reef slopes of the Houtman Abrolhos Is. where well-developed colonies form tiers and whorls.

Records: Middle Ningaloo Reefs 861-85 (lagoon 5-12m)

Dorre I.

Wallabi Group (Houtman Abrolhos Is.) 45-87

Houtman Abrolhos Is. 906-81, 765-85, 729-85

***Montipora spongodes*** Bernard, 1897

Veron and Wallace (1984): 44-47, figs. 100-108, 1111, 1112.

Usually uncommon. Colonies have encrusting or plate-like bases with upward-projecting ridges and columns (Veron 1986b, p. 103, fig. 1).

Records: Ashmore Reef 553-86 (reef flat, 0m)

Kimberley Coast 242-87

Dampier Archipelago (EPA)

Bernier I. 126-81 (intertidal)

Wallabi Group (Houtman Abrolhos Is.) 40-87

Easter Group (Houtman Abrolhos Is.) 382-77, 9-73, 39-87, 42-87 (lagoon, 9m)

Houtman Abrolhos Is. 396-84, 742-85

Port Gregory 491-84, 489-84 (inner edge of reef)

Port Denison 768-85

***Montipora spumosa*** (Lamarck, 1816)

Veron and Wallace (1984): 47-51, figs. 109-119, 1113

Common in tropical areas, especially off-shore reefs. Forms columns, especially in turbid water, with a wide range of colours.

Records: Ashmore Reef V

Scott Reef V

Rowley Shoals 372-83, 728-85, 425-83 (lagoon, 1-18m and outer slope, 16-35m)

Dampier Archipelago V

Montebello Is. 477-80 (lagoon 2-3m)

Northern Ningaloo Reefs 34-81 (outer slope, 12-15m)

Middle Ningaloo Reefs 900-85 (lagoon, 5-12m)

Southern Ningaloo Reefs 595-78 (back reef)

Dorre I. 123-81 (0-4m)

Wallabi Group (Houtman Abrolhos Is.) 777-81 (1-2m)

Pelsaert Group (Houtman Abrolhos Is.) 793-81 (back reef)

Houtman Abrolhos Is. 457-84, 749-85

***Montipora undata*** Bernard, 1897

Veron and Wallace (1984): 51-54, figs. 120-128, 1114.

Common on reef slopes of tropical coastal reefs.

Records: Ashmore Reef 499-86, 483-86, 630-86, 741-86, 931-86 (outer slope, 10-20m)

Scott Reef 770-85, 747-85 (12-15m)

Rowley Shoals 304-83, 310-83, 442-83, 381-83 (outer slope, 10-35m)

Dampier Archipelago 732-85, 480-78, 339-84, 338-84, 340-84 233-73, 477-78, 75-74 (outer slope, 5-6m)

Montebello Is. 478-80 (3-4m)

Northern Ningaloo Reefs 360-77 (reef flat)

Middle Ningaloo Reefs 894-85 (lagoon 5-12m)

***Montipora danae*** (Edwards & Haime, 1851)

Veron and Wallace (1984): 54-58, figs. 129-144, 1115-1118.

Common on upper reef slopes and lagoons. Forms large whorls in NW Shelf reefs.

Records: Ashmore Reef V

Scott Reef 734-85, 730-85, 725-85 (lagoon, 5-18m and reef slope)

Rowley Shoals 306-83, 272-83, 379-83, 375-83, 411-83 (lagoon 1-18m and outer slope, 16-35m)

Dampier Archipelago 341-84, 478-78

Ningaloo Reef Tract

Wallabi Group (Houtman Abrolhos Is.) 54-88

Easter Group (Houtman Abrolhos Is.) 137-88

Houtman Abrolhos Is. 736-85

***Montipora verrucosa*** (Lamarck, 1816)

Veron and Wallace (1984): 59-62, figs. 145-153, 1119.

Sometimes common on upper reef slopes and in lagoons.

Records: Ashmore Reef 622-86, 683-86 (outer slope, 8-20m)

Scott Reef V

Rowley Shoals 250-83 (lagoon, 6m)

Dampier Archipelago 499-80

Passage Is. 485-80 (2-5m)

Northern Ningaloo Reefs 556-81 (lagoon, 2-5m)

Middle Ningaloo Reefs 486-78, 814-85 (lagoon, 5-12m)

***Montipora incrassata*** (Dana, 1846)

Veron and Wallace (1984): 62-65, figs. 154-162, 1120, 1121.

Uncommon.

Records: Scott Reef 769-85, 727-85 (reef slope)

Dampier Archipelago 759-85, 336-84

Montebello Is. 482-80 (3-4m)

Wallabi Group (Houtman Abrolhos Is.) 46-87

Pelsaert Group (Houtman Abrolhos Is.) 869-81 (back reef)

***Montipora foveolata*** (Dana, 1846)

Veron and Wallace (1984): 66-68, figs. 163-169, 1122, 1123.

Restricted to tropical areas. Uncommon.

Records: Ashmore Reef

Scott Reef 754-85 (lagoon, 5-8m)

Rowley Shoals 303-83, 252-83 (lagoon, 6m and outer slope, 16-35m)

Dampier Archipelago 126-73, 74-74, 143-74, (reef flat and outer slope)

Middle Ningaloo Reefs 815-85, 861-85

Southern Ningaloo Reefs 489-78 (reef flat)

South Passage, Shark Bay 523-79 (8m)

***Montipora venosa*** (Ehrenberg, 1834)

Veron and Wallace (1984): 70-71, figs. 170-177, 1124.

Rare.

Records: Ashmore Reef 768-86 (outer slope, 6-14m)  
Kimberley Coast 163-87  
Scott Reef 758-85, 724-85 (reef flat; reef slope)  
Montebello Is.  
Northern Ningaloo Reefs 35-78, 13-81 (reef flat; outer slope, 6m)  
Middle Ningaloo Reefs 488-78, 815-85 (lagoon 5-12m; edge of passage)

***Montipora caliculata*** (Dana, 1846)

Veron and Wallace (1984), p. 72, figs. 178-184.

This species appears to be rare in Western Australia.

Records: Ashmore Reef 755-86, 868-86 (outer slope, 10-20m)  
Wallabi Group (Houtman Abrolhos Is.) 30-87, 32-87, 33-87  
Easter Group (Houtman Abrolhos Is.) 31-87

***Montipora angulata*** (Lamarck, 1816)

Veron and Wallace (1984): 75-77, figs. 185-193.

Uncommon.

Records: Scott Reef 743-85 (reef flat)  
Northern Ningaloo Reefs 71-81, 737-81, 14-81, 29-81, 354-77 (reef flat; back reef; lagoon)  
Dorre I. 121-81 (0-4m)  
Wallabi Group (Houtman Abrolhos Is.) 327-78, 25-87, 41-87 (12m)  
Pelsaert Group (Houtman Abrolhos Is.) 58-72

***Montipora digitata*** (Dana, 1846)

Veron and Wallace (1984): 77-82, figs. 194-206, 1125.

Common only in shallow-water coastal localities (Veron 1986b, p. 112, fig. 1, from Dampier Archipelago).

Records: Ashmore Reef 565-86 (outer slope, 6-14m)  
Cartier Reef  
Scott Reef 760-85 (outer slope)  
Lacepede Is. 463-83  
Dampier Archipelago 485-78 (1m)  
Northern Ningaloo Reefs 356-77, 726-81 (reef flat)  
Middle Ningaloo Reefs 74-72 (reef flat)  
Wallabi Group (Houtman Abrolhos Is.) 325-78, 780-81 (lagoon, 1-12m)

***Montipora hispida*** (Dana, 1846)

Veron and Wallace (1984): 82-87, figs. 207-223, 1126.

Less common on the west coast than on the Great Barrier Reef. Columnar colonies are found mostly in lagoons.

Records: Ashmore Reef 644-86, 837-86 (lagoon, outer slope, 10-30m)  
Scott Reef 761-85, 726-85 (outer slope, 10-30m)  
Dampier Archipelago 239-73, 771-85, 329-84, 332-84, 139-74, 333-84, (outer slope, 0-8m)  
Montebello Is. 479-80, 475-80 (lagoon, 1-3m)  
Northern Ningaloo Reefs 72-81 (lagoon)  
Southern Ningaloo Reefs 487-78 (lagoon, 2-3m)  
Dorre I. 117-81  
South Passage, Shark Bay 551-79, 525-79 (2-5m)

Wallabi Group (Houtman Abrolhos Is.) 326-78, 208-78, 910-81 (reef flat; lagoon, 2-4m)  
Easter Group (Houtman Abrolhos Is.) 28-87  
Pelsaert Group (Houtman Abrolhos Is.) 741-81 (back reef)

***Montipora australiensis* Bernard, 1897**

Veron and Wallace (1984): 88, figs. 224-232.

This species was not found on the west coast during the present study although the Houtman Abrolhos Is. is the type locality.

Previous records from Western Australia: Houtman Abrolhos (BMNH 95.10.9.58 (holotype) and BMNH 95.10.9.45, .53, .54 and .58) all coll. Saville-Kent (Bernard 1897).

***Montipora efflorescens* Bernard, 1897**

Veron and Wallace (1984): 91-93, figs. 233-241, 1127.

Common on upper reef slopes, usually brightly coloured.

Records: Ashmore Reef 770-86 (outer slope, 10-20m)  
Scott Reef 757-85 (reef slope, 12-15m)  
Rowley Shoals 207-83, 292-83, 408-83 (lagoon, 8-18m and outer slope, 16-35m)  
Cockatoo I. 823-81  
Dampier Archipelago 343-84, 344-84, 483-78, 342-84, 141-74 (reef flat; 2-3m)  
Barrow I. 243-74 (back reef)  
Middle Ningaloo Reefs 898-85, 812-85, 931-85 (lagoon, 5-12m)  
North I. (Houtman Abrolhos Is.) 735-81, 771-81, (3m)  
Wallabi Group (Houtman Abrolhos Is.) 134-78 (24-27m)

***Montipora nodosa* (Dana, 1846)**

Veron and Wallace (1984): 94-97, figs. 242-252, 1128.

An uncommon and ill-defined species on the West Australian coast.

Records: Scott Reef V  
Montebello Is.  
Houtman Abrolhos Is. 739-85

***Montipora grisea* Bernard, 1897**

Veron and Wallace (1984): 98-99, figs. 253-261, 1129.

Common only in tropical localities.

Records: Ashmore Reef 731-86, 760-86, 805-86, 822-86, 825-86, 856-86, 841-86, 943-86  
Scott Reef 731-85, 745-85 (reef slope)  
Rowley Shoals 325-83, 333-83, 311-83 (outer slope, 16-35m)  
Dampier Archipelago 234-73, 753-85 (reef edge)  
Northern Ningaloo Reefs 352-77 (reef flat)  
Middle Ningaloo Reefs 952-85, 873-85, 898-85 (lagoon, 5-12m)  
Port Gregory 590-84  
Wallabi Group (Houtman Abrolhos Is.) 24-87  
Easter Group (Houtman Abrolhos Is.) 23-87

***Montipora stellata* Bernard, 1897**

Veron and Wallace (1984): 100-103, figs. 262-271, 1130, 1131

Records: Montebello Is.  
Exmouth Gulf 589-81  
Wallabi Group (Houtman Abrolhos Is.) 21-87, 22-87, 48-87

***Montipora informis* Bernard, 1897**

Veron and Wallace (1984): 106-109, figs. 281-287, 1132, 1133.

Common only in tropical localities.

Records: Ashmore Reef 780-86 (outer slope, 10-20m)

Scott Reef 721-85 (reef slope)

Rowley Shoals 397-83, 266-83, 298-83 (lagoon, 1-18m and outer slope, 16-35m)

Northern Ningaloo Reefs 11-81 (outer slope, 12-15m)

Middle Ningaloo Reefs 931-85 (outer slope, 8-20m)

Wallabi Group (Houtman Abrolhos Is.) 329-78, 27-87 (9m)

***Montipora aequituberculata* Bernard, 1897**

Veron and Wallace (1984): 114-118, figs. 300-311, 1136-1138

Very common throughout range, especially on protected lower reef slopes and in lagoons.

Records: Ashmore Reef 695-86, 790-86 (lagoon, 0-18m)

Scott Reef 740-85, 766-85 (lagoon, 6-18m)

Rowley Shoals 486-84 (lagoon, 8-18m)

Dampier Archipelago 482-78, 335-84, 330-84, 326-84 (lagoon, 3-4m)

Montebello Is. 481-80 (lagoon, 1-3m)

Northern Ningaloo Reefs 365-77, 366-77 (reef flat)

Middle Ningaloo Reefs 899-85, 897-85 (lagoon, 5-12m)

Bernier I. 129-81 (1-3m)

Wallabi Group (Houtman Abrolhos Is.) 796-81, 889-81, 795-81, 385-77, 334-78, 136-78, 135-78, 38-87 (lagoon, 1-12m and passage, 20m)

Easter Group (Houtman Abrolhos Is.) 50-73, 60-73, 53-73, 386-77, 127-88 (reef slope, 1-4m)

Pelsaert Group (Houtman Abrolhos Is.) 778-81, 908-81 (back reef; lagoon, 2-4m)

Houtman Abrolhos Is. 448-84, 454-84, 449-84, 755-85, 453-84, 456-84, 455-84, 464-84, 461-84, 463-84, 460-84

Port Gregory 494-84 (lagoon)

***Montipora crassituberculata* Bernard, 1897**

Veron and Wallace (1984): 119, figs. 312-318.

Less common on the west coast than on the Great Barrier Reef.

Previous records from Western Australia: Houtman Abrolhos (type, coll. Saville-Kent) holotype BMNH 95.10.9.186 Bernard (1897)

Records: Dampier Archipelago 15-72

Montebello Is.

Northern Ningaloo Reefs 1-81

North I. (Houtman Abrolhos Is.) 794-81 (lagoon, 3m)

Wallabi Group (Houtman Abrolhos Is.) 209-74, 324-78, 786-85, 46-87 (1-4m)

Easter Group (Houtman Abrolhos Is.) 383-77, 48-73, 61-73 (lagoon, 3-9m)

Pelsaert Group (Houtman Abrolhos Is.) 799-85 (lagoon, 2-4m)

Houtman Abrolhos Is. 773-85, 460-84.

***Montipora foliosa* (Pallas, 1766)**

Veron and Wallace (1984): 110-114, figs. 290-299, 1134, 1135

Uncommon at the Houtman Abrolhos Is. but common in most tropical localities.

Previous records from Western Australia: Houtman Abrolhos (as *M. circinata*) Bernard (1897); Saville-Kent (1897).



Records: Ashmore Reef 744-86, 788-86  
 Scott Reef V  
 Rowley Shoals 369-83, 300-83, 282-83, 281-83, 289-83, 318-83, 378-83, (outer slope, 16-35m)  
 Northern Ningaloo Reefs 59-81, 362-77 (back reef; lagoon 3m)  
 Middle Ningaloo Reefs 897-87  
 Houtman Abrolhos Is. 738-85  
 Wallabi Group (Houtman Abrolhos Is.) 17-87

***Montipora* sp. 1**

A single distinctive specimen only is attributed to this species. Its taxonomic status is doubtful.

Records: Wallabi Group (Houtman Abrolhos Is.) 26-87.

***Montipora* sp. 2**

This appears to be a valid species not previously recorded from Australia.

Records: Middle Ningaloo Reefs 859-87  
 Easter Group (Houtman Abrolhos Is.) 29-87.

***Montipora* sp. 3**

The taxonomic position of the single specimen attributed to this species is doubtful.

Records: Easter Group (Houtman Abrolhos Is.) 906-81 (1m)

**GENUS ANACROPORA (Ridley, 1884)**

***Anacropora puertogalerae*** Nemenzo, 1964  
 Veron and Wallace (1984): 125-128, figs. 330-336, 1141.

Very common at Scott Reef (Veron 1986b, p. 124, fig. 2) but unknown elsewhere on the west coast.

Records: Scott Reef 776-85, 777-85 (reef slope)

**GENUS ACROPORA (Oken, 1815)**

As with most *Montipora* species, there is a greater degree of intra-specific similarity between coralla of the NW Shelf and the Great Barrier Reef than there is between those of the NW Shelf and coastal and temperate western localities. There are also major differences in the relative abundance of species between these regions. Of the 15 groups of *Acropora* defined by Veron and Wallace (1984), the *A. palifera* group is largely restricted to NW Shelf reefs where colonies are similar in abundance and appearance to those of the Great Barrier Reef. Three common members of the *A. humilis* group (*A. humilis*, *A. gemmifera* and *A. monticulosa*) are similarly restricted or absent.

There are major differences in relative abundance between the west and east coast in some species: *A. samoensis*, *A. cytherea*, *A. aculeus*, *A. divaricata*, *A. clathrata* and *A. sarmentosa* are all common on most reefs of the Great Barrier Reef, but usually uncommon at western coastal localities. The reverse applies to *A. willisae*, which is much less common on the Great Barrier Reef. *Acropora abrolhosensis*, *A. spicifera* and *A. stoddarti* have not been recorded from the east coast.

Several *Acropora* species have distinct variants in specific geographic regions and may be sibling species or geographic subspecies. The most notable of these are *A. grandis*

from temperate localities which has distinct morphological characters and colours and *A. florida* from all western localities which is similarly distinguished from all east coast localities.

There are also morphological, colour and behavioural differences between colonies from temperate localities and their tropical counterparts. Several species of *Acropora* at the Houtman Abrolhos Islands extend their polyps during the day, whereas this is almost never seen in tropical localities. Similarly, many *Acropora* species at the Houtman Abrolhos Islands (except those growing on reef flats exposed to wave action) are relatively lightly calcified. Coralla of all species from coastal temperate localities are substantially morphologically different from coralla of the same species (or in some cases, supposedly the same species) from either the Houtman Abrolhos Islands or from tropical localities. This may be attributable to environmental conditions at the extreme limit of their distribution ranges.

***Acropora palifera*** (Lamarck, 1816)

Veron and Wallace (1984): 153-158, figs. 354-364, 1143-1146, 1149.

The most common of all corals on the east coast but known only from the NW Shelf reefs of the west coast where it is abundant, especially on upper reef slopes exposed to strong wave action. The range of growth forms on both coasts is similar.

Records: Ashmore Reef 659-86 (reef flat, 0m)

Scott Reef V (reef slope)

Rowley Shoals 370-83, 296-83, 323-83, 336-83, 471-83 (reef flat; outer slope)

Dampier Archipelago V

***Acropora brueggemanni*** (Brook, 1893)

Veron and Wallace (1984): 162-164, figs. 374-385, 1148-1149.

Like *A. palifera*, this species is found only on NW Shelf reefs of the west coast where it has the same range of growth forms as on the Great Barrier Reef.

Records: Ashmore Reef 592-86

Scott Reef 604-85, 605-85, 606-85 (outer slope)

Rowley Shoals 383-83, 285-83, 193-83 (lagoon, 8m and outer slope, 16-35m)

Cockatoo I. 607-85

***Acropora humilis*** (Dana, 1846)

Veron and Wallace (1984): 166-170, figs. 386-394, 1150, 1151, 1154.

Common on NW shelf reefs but has only been recorded at the Dampier Archipelago on the coast where it is uncommon.

Records: Ashmore Reef 684-86 (lagoon, 0-18m)

Scott Reef V

Rowley Shoals 360-83 (reef flat)

Dampier Archipelago 78-73 (reef edge)

***Acropora gemmifera*** (Brook, 1892)

Veron and Wallace (1984): 170-174, figs. 395-403, 1151-1154, 1160.

Common on NW Shelf reefs but on the coast has only been recorded at the Dampier Archipelago, where it is uncommon.

Records: Ashmore Reef 650-86, 722-86 (outer slope, 12-20m)

Cartier Reef 777-86 (reef flat, 0m)

Scott Reef V

Rowley Shoals 347-83, 343-83 (outer slope, 15-30m)

Dampier Archipelago

***Acropora monticulosa*** (Brüggemann, 1879)

Veron and Wallace (1984): 174-176, figs. 404-411, 1155, 1156.

Recorded only from the NW Shelf reefs where it is uncommon.

Records: Ashmore Reef V  
Scott Reef V  
Rowley Shoals V

***Acropora samoensis*** (Brook, 1891)

Veron and Wallace (1984): 178-180, figs. 414-420, 1157, 1158

Uncommon at all recorded localities.

Records: Ashmore Reef 531-86, 662-86 (lagoon, 0-18m)  
Scott Reef V  
Rowley Shoals V  
Dampier Archipelago  
Bundegi Reef, Exmouth Gulf 586-81 (2-4m)

***Acropora digitifera*** (Dana, 1846)

Veron and Wallace (1984): 180-183, figs. 421-428, 1159, 1160.

Common on exposed reef flats of tropical localities where colonies have the same range of growth forms as on the Great Barrier Reef. Only corymbose colonies have been recorded from the Houtman Abrolhos Is.

Records: Ashmore Reef 694-86, 829-86 (reef flat and outer slope)  
Institut I.  
Scott Reef V  
Rowley Shoals V  
Dampier Archipelago 355-84, 72-74, 84-73, 176-73 (reef flat; outer slope)  
Barrow I. 237-74, 241-74 (lagoon, 0-1m)  
Middle Ningaloo Reefs 474-78 (reef flat)  
Dorre I. 747-81 (0-4m)  
Dirk Hartog I. 29-59, 585-79 (1-2m)  
North I. (Houtman Abrolhos Is.) 797-85, 905-81, (outer slope)  
Wallabi Group (Houtman Abrolhos Is.) V  
Easter Group (Houtman Abrolhos Is.) V  
Port Gregory 135-58

***Acropora verweyi*** Veron & Wallace, 1984

Veron and Wallace (1984): 191-194, figs. 446 (holotype), 447, 454, 1164, 1165.

Uncommon at coastal localities but common at most NW Shelf reefs. Colonies at the Houtman Abrolhos Is. have longer branches than usual for tropical localities.

Records: Ashmore Reef V  
Dampier Archipelago 354-84, 664-85, 972-79, 739-81, 318-84 (intertidal; 0-6m)  
Passage Is. 742-81  
Bundegi Reef, Exmouth Gulf 437-81 (2-4m)  
Northern Ningaloo Reefs 540-81 (lagoon, 1-5m)  
Middle Ningaloo Reefs 809-85, 810-85 (lagoon, 5-12m)  
Dirk Hartog I. 26-59 (0-1m)  
South Passage, Shark Bay 581-79, 579-79 (3-10m)  
Houtman Abrolhos Is. 663-85, 440-84

***Acropora lovelli*** Veron & Wallace, 1984

Veron and Wallace (1984): 194-198, figs. 455, 456 (holotype), 457-464, 1166-1168.

Rare at tropical localities where most identifications are tentative only.

Records: Dampier Archipelago 355-84

Bundegi Reef, Exmouth Gulf

Wallabi Group (Houtman Abrolhos Is.) 170-78, 182-74, 321-78 (outer slope 1-6m)

Easter Group (Houtman Abrolhos Is.) 24-73 (reef flat)

***Acropora glauca*** (Brook, 1893)

Veron and Wallace (1984): 198-201, figs. 465-472

Rare at tropical localities but common at the Houtman Abrolhos Is. where colonies tend to form explanate plates up to 1.5m diameter.

Previous record from Western Australia: West Australia (BMNH 86.2.26.7, holotype) Brook (1893).

Records: Ashmore Reef 502-86, 771-86, 942-86 (outer slope, 8-20m)

Rowley Shoals 324-83 (outer slope, 16-35m)

Dampier Archipelago 324-84 (outer slope, 4-9m)

Houtman Abrolhos Is. 393-84, 439-84

Port Gregory 987-85

Geraldton V

***Acropora robusta*** (Dana, 1846)

Veron and Wallace (1984): 201-207, figs. 473-485, 1171-1173.

Common at NW Shelf reefs where colonies have the same range of variation as on the Great Barrier Reef.

Records: Ashmore Reef V

Scott Reef V

Rowley Shoals 359-83 (reef flat)

Dampier Archipelago 114-73, 193-73, 86-73, 169-73, 19-76, 165-74 (reef edge; outer slope, 2-8m)

Bundegi Reef, Exmouth Gulf 441-81 (2-4m)

Northern Ningaloo Reefs 48-81, 38-81 (back reef)

Middle Ningaloo Reefs 76-72

Dorre I. 147-81 (0-4m)

South Passage, Shark Bay 567-79 (3-5m)

Dirk Hartog I. 568-79, 89-81 (0-3m)

Wallabi Group (Houtman Abrolhos Is.) 788-85, 643-85 (lagoon, 1-4m)

***Acropora danai*** (Edwards & Haime, 1860)

Veron & Wallace (1984): 207-211, figs. 486-496, 1174-1176.

Found only at tropical localities where colonies have the same range of variation as found on the Great Barrier Reef.

Records: Ashmore Reef 490-86, 523-86 (outer slope, 10-20m)

Scott Reef V

Rowley Shoals V

Dampier Archipelago 640-85, 345-84, 321-84, 738-81, 186-73, 65-74, 227-74, 192-73 (outer slope)

Northern Ningaloo Reefs 40-81, 482-81, 39-81, 242-77, 241-77, 547-81 (reef flat; back reef)

Middle Ningaloo Reefs 476-78, 251-77 (reef flat)

***Acropora nobilis*** (Dana, 1846)

Veron and Wallace (1984): 214-219, figs. 504-516, 1178-1181

Common, especially at the Houtman Abrolhos Is. (Veron 1986b, p. 150, fig. 4) where colonies form monospecific stands >10m across. These are a range of pale colours or deep blue.

Records: Ashmore Reef 646-86 (reef flat, 1-4m)  
Scott Reef V  
Rowley Shoals 356-83, 373-79 (reef flat)  
Dampier Archipelago 641-85, 76-73, 188-73 (reef edge; outer slope)  
Montebello Is. 97-81 (3-4m)  
Barrow I.  
Northern Ningaloo Reefs 728-81, 50-78, 244-77 (reef flat; back reef)  
Southern Ningaloo Reefs 471-78 (back reef)  
Wallabi Group (Houtman Abrolhos Is.) 690-85, 320-78, 696-85 (1-6m)  
Easter Group (Houtman Abrolhos Is.) 66-73 (reef slope, 6m)  
Pelsaert Group (Houtman Abrolhos Is.) 689-85, 695-85, 697-85 (1-2m)  
Houtman Abrolhos Is. 642-85, 441-84.

***Acropora polystoma*** (Brook, 1891)

Veron and Wallace (1984): 219-220, figs. 517-523.

Recorded from a research collection, not observed or collected from Western Australia by the authors.

Records: Dampier Archipelago (EPA)

***Acropora listeri*** (Brook, 1893)

Veron and Wallace (1984): 223, figs. 528-534

Recorded from a research collection, not observed or collected from Western Australia by the authors.

Records: Dampier Archipelago (EPA)

***Acropora grandis*** (Brook, 1892)

Veron and Wallace (1984): 226-230, figs. 537-547, 1185, 1186

Colonies tentatively attributed to this species are very common on reef flats and upper reef slopes of the Houtman Abrolhos Is. where most are a uniform pale brown or bright blue. These do not form the large, thick-branched colonies that are common in similar environments on the Great Barrier Reef. Coralla from both coasts have similar, lightly calcified corallites.

Records: Ashmore Reef V  
Scott Reef V  
Rowley Shoals 319-83 (outer slope, 16-35m)  
Dampier Archipelago 349-84, 687-85, 781-85, 794-85  
Bundegi Reef, Exmouth Gulf  
Northern Ningaloo Reefs 532-81 (1-2m)  
Port Gregory 149-58  
Wallabi Group (Houtman Abrolhos Is.) 90-88  
Easter Group (Houtman Abrolhos Is.) V  
Houtman Abrolhos Is. 435-84



***Acropora formosa*** (Dana, 1846)

Veron and Wallace (1984): 230-234, figs. 548-560, 1187-1189.

Common at all localities, but particularly the Houtman Abrolhos Is. (Veron 1986b, p. 154, fig. 2) where monospecific stands >10m frequently occur in shallow lagoons and on upper reef slopes.

Records: Ashmore Reef 520-86, 721-86 (outer slopes, 10-20m)

Wilson Point 244-87 (2-3m)

Troughton I. 718-85

Cassisi I. 700-85

Scott Reef 787-85 (lagoon)

Rowley Shoals V

Dampier Archipelago 792-85, 350-84, 698-85, 89-73, 142-73, 166-74, 77-73 (reef edge; outer slope, 5-6m)

Montebello Is.

Bundegi Reef, Exmouth Gulf 544-81 (reef flat)

Northern Ningaloo Reefs 727-81

Middle Ningaloo Reefs 75-72 (reef flat)

Southern Ningaloo Reefs 473-78 (back reef)

Wallabi Group (Houtman Abrolhos Is.) 213-74, 701-85, 778-85, 706-85 (reef flat; lagoon, 2m)

Easter Group (Houtman Abrolhos Is.) V

Pelsaert Group (Houtman Abrolhos Is.) 705-85, 708-85 (reef flat; lagoon, 2-3m)

Houtman Abrolhos Is. 683-85, 414-84, 699-85.

***Acropora abrolhosensis*** Veron, 1985

Veron (1985): 151-153, figs. 3, 4.

Uncommon at all localities except for the Houtman Abrolhos Is. (Veron 1986b, p. 155, figs. 1,2) where monospecific stands >10m frequently occur in shallow lagoons and on upper reef slopes. Coralla from all localities have similar skeletal structures. Polyps are usually extended day and night at all localities.

Records: Ashmore Reef 582-86 (reef flat, 1-4m)

Scott Reef 710-85 (outer slope)

Rowley Shoals 240-83, 450-83 (lagoon, 6m)

Dampier Archipelago 709-85, 18-76, 789-85 (reef flat)

Middle Ningaloo Reefs 881-85 (lagoon, 5-12m)

Wallabi Group (Houtman Abrolhos Is.) 91-88

Easter Group (Houtman Abrolhos Is.) 160-84 (holotype), 117-88 (reef slope, 3m)

***Acropora acuminata*** (Verrill, 1864)

Veron and Wallace (1984): 235-238, figs. 561-569, 1190, 1191

Uncommon.

Records: Ashmore Reef 476-86 (outer slope, 10-20m)

Houtman Abrolhos Is. 471-84

***Acropora valenciennesi*** (Edwards & Haime, 1860)

Veron and Wallace (1984): 238-241, figs. 570-578, 1192-1194.

Common only at tropical localities where colonies are indistinguishable from those from the Great Barrier Reef. Coralla from the Houtman Abrolhos Is. are more arborescent and are only tentatively attributed to this species.

Records: Ashmore Reef 561-86 (reef flat, 0m)  
Scott Reef 630-85 (outer slope)  
Dampier Archipelago  
Bundegi Reef, Exmouth Gulf 535-81 (2-4m)  
Ningaloo Reef Tract  
Wallabi Group (Houtman Abrolhos Is.) 426-77, 691-85, 692-85, 693-85, 694-85, (lagoon, 1-20m)

***Acropora microphthalma*** (Verrill, 1869)

Veron and Wallace (1984): 242-246, figs. 579-590, 1195, 1196.

Probably uncommon throughout most of the recorded range. Colonies from NW Shelf reefs are mostly indistinguishable from those from the Great Barrier Reef but several coralla are referred to this species with doubt. The corallum from the Houtman Abrolhos Is. and some from northern coastal localities may represent a separate species or geographic subspecies. Colonies from all localities are usually pale grey in colour.

Records: Ashmore Reef 510-86, 576-86, 491-86, 538-86, 692-86 (lagoon 3-5m)  
Scott Reef 637-85, 638-85, 639-85 (lagoon; outer slope)  
Rowley Shoals 447-83 (outer slope, 10-30m)  
Cockatoo I.  
Dampier Archipelago  
Bundegi Reef, Exmouth Gulf  
Northern Ningaloo Reefs 542-81 (2-5m)  
North I. (Houtman Abrolhos Is.) 790-85 (lagoon, 3m)

***Acropora bushyensis*** Veron and Wallace, 1984

The single specimen attributed to this species shows no differences from coralla from the southern Great Barrier Reef, the only other recorded locality of the species.

Records: South Passage, Shark Bay 590-79

***Acropora horrida*** (Dana, 1846)

Veron and Wallace (1984): 251-225, figs. 602-612, 1198-1200.

Colonies from tropical localities are pale or dark blue (like those from the Great Barrier Reef) or brown while those from the Houtman Abrolhos Is. are mostly brown. The latter, which forms stands up to 2m diameter have relatively small corallites and identification is tentative. Polyps are usually extended day and night at all localities.

Records: Ashmore Reef 534-86, 477-86, 657-86 (reef flat, lagoon, 2-13m)  
Scott Reef 631-85, 632-85 (lagoon, 9-12m)  
Rowley Shoals 417-83, 195-83, 629-85 (lagoon, 8-18m)  
Dampier Archipelago 320-84  
Northern Ningaloo Reefs 178-81 (back reef)  
Wallabi Group (Houtman Abrolhos Is.) 714-85, 89-88, 94-88, 100-88  
Pelsaert Group (Houtman Abrolhos Is.) 57-72 (reef flat)  
Houtman Abrolhos Is. 474-84, 627-85, 628-85

***Acropora tortuosa*** (Dana, 1846)

Veron and Wallace (1984): 255-258, figs. 613-622, 1201.

Some corolla are difficult to distinguish from *A. horrida*.

Records: Dampier Archipelago  
North I. (Houtman Abrolhos Is.) 912-81, 703-85 (lagoon, 3m)  
Wallabi Group (Houtman Abrolhos Is.) 686-85, 704-85 (lagoon, 1-4m)  
Easter Group (Houtman Abrolhos Is.) 893-81 (fringing reef)  
Houtman Abrolhos Is. 625-85, 684-85, 685-85, 626-85

***Acropora vaughani*** Wells, 1954

Veron and wallace (1984): 260-262, figs. 623-627, 1202.

Uncommon at all localities.

Records: Scott Reef 633-85, 634-85, 635-85 (lagoon)  
Rowley Shoals 283-83, 286-83 (outer slope, 16-35m)  
Northern Ningaloo Reefs 520-81 (back reef, lagoon, 6-9m)  
Houtman Abrolhos Is. 783-85

***Acropora austera*** (Dana, 1846)

Veron and Wallace (1984): 262-266, figs. 632-645, 1203-1204.

Colonies at NW Shelf reefs are usually pale brown with yellow axial corallites, a common colour pattern of Great Barrier Reef colonies.

Records: Ashmore Reef V  
Scott Reef V  
Rowley Shoals 287-83, 368-83 (outer slope, 16-35m)  
Dampier Archipelago (EPA)  
Northern Ningaloo Reefs 483-81, 190-77, 28-81 (reef flat; back reef; lagoon)  
Southern Ningaloo Reefs 472-78 (back reef)

***Acropora aspera*** (Dana, 1846)

Veron and Wallace (1984): 268-270, figs. 646-654, 1205, 1206.

Common throughout the distribution range. Colonies have a wide range of ecomorphs, those on reef flats of the Houtman Abrolhos Is. develop very thick branches, are bright blue and superficially resemble *A. grandis* from the same biotope.

Records: Ashmore Reef 651-86, 711-86 (reef flat, 0m)  
Cassini I. 578-85  
Dampier Archipelago 143-73, 85-73, 135-73, 182-73, 67-74, 139-73 (reef flat; reef edge; outer slope, 5-6m)  
Barrow I. 236-74, 260-74 (back reef)  
Bundegi Reef, Exmouth Gulf  
Northern Ningaloo Reefs 211-81, 212-81, 61-81, 246-77, 245-77, 247-77, 17-81 (reef flat; lagoon)  
Southern Ningaloo Reefs 471-81 (back reef)  
Bernier I., Shark Bay 150-81, 745-81 (intertidal; 0-3m)  
South Passage, Shark Bay 1027-79, 582-79 (3-5m)  
Wallabi Group (Houtman Abrolhos Is.) 590-85 (reef flat)  
Easter Group (Houtman Abrolhos Is.) V  
Houtman Abrolhos Is. 588-85.

***Acropora pulchra*** (Brook, 1891)

Veron and Wallace (1984): 272-274, figs. 655-666, 1209.

Common throughout the distribution range. Commonly forms monospecific stands > 10m diameter in shallow lagoons and on upper reef slopes at the Houtman Abrolhos Is. (Veron 1986b, p. 165, figs. 2,3). Branches from these colonies are relatively fine and lightly calcified and corallites small. Also common on reef flats where colonies become sub-corymbose.

Records: Ashmore Reef 482-86, 699-86, 567-86 (reef flat, 0m)  
Admiralty Gulf  
Cape Voltaire 585-85  
Scott Reef 582-85, 673-85 (reef flat; reef slope)

Rowley Shoals V

Dampier Archipelago 21-76, 988-79, 584-85, 731-81, 133-73, 189-73, 71-74, (intertidal to outer slope, 5-6m)

Bundegi Reef, Exmouth Gulf 545-81 (reef flat)

Northern Ningaloo Reefs 211-81, 214-81, 173-81, 188-77, 215-81 (reef flat; back reef)

Middle Ningaloo Reefs 69-72 (back reef)

Dirk Hartog I. 588-79 (2m)

South Passage, Shark Bay 591-79 (3-5m)

North I. (Houtman Abrolhos Is.) 579-85, 581-85, 904-81 (3m)

Wallabi Group (Houtman Abrolhos Is.) 194-74, 318-78, 586-85, 93-88 (lagoon, 1-9m)

Easter Group (Houtman Abrolhos Is.) 20-73, 22-73, 12-73, 118-88, 120-88 (fringing reef; lagoon, 2-3m)

Houtman Abrolhos Is. 397-84, 481-84, 580-85, 473-84, 472-84, 476-84, 442-84, 437-84, 583-85, 587-85

*Acropora millepora* (Ehrenberg, 1834)

Veron and Wallace (1984): 274-278, figs. 667-678, 1208-1210.

Common throughout the distribution range, with the same colours as Great Barrier Reef colonies. Restricted to reef flats.

Records: Ashmore Reef 664-86 (reef flat, 0m)

Cockatoo I.

Scott Reef V.

Rowley Shoals 362-83 (reef flat)

Dampier Archipelago 589-85, 87-73, 168-74, 226-74, 81-73, 730-81, 729-81, 740-81, 732-81, 733-81, 322-84, 79-73, 137-73, 171-73, 179-73, 183-73, 172-74 (reef edge; outer slope, 3-9m)

Montebello Is. 41-59

Passage I. 104-81 (2-5m)

Bundegi Reef, Exmouth Gulf 436-81 (2-4m)

Northern Ningaloo Reefs 463-81, 195-77, 193-77, 192-77, 194-77 (reef flat)

Middle Ningaloo Reefs 591-85, 171-81 (reef flat)

Southern Ningaloo Reefs 472-81 (back reef)

Bernier I. 144-81 (2-4m)

Dirk Hartog I. 578-79 (2-3m)

South Passage, Shark Bay 1026-79 (5m)

Wallabi Group (Houtman Abrolhos Is.) 190-74 (reef flat)

Easter Group (Houtman Abrolhos Is.) V

Pelsaert Group (Houtman Abrolhos Is.) 592-85

Jurien Bay 66-85 (lagoon)

*Acropora tenuis* (Dana, 1846)

Veron and Wallace (1984): 279-282, figs. 679-687, 1211-1213

Common in lagoons throughout the distribution range, where colonies are pale cream or yellow. Polyps are usually partly extended during the day at the Houtman Abrolhos Is.

Records: Ashmore Reef V

Scott Reef V

Rowley Shoals V

Dampier Archipelago 317-84, 319-84, 615-85

Ningaloo Reefs V

Wallabi Group (Houtman Abrolhos Is.) 793-85, 616-85

Easter Group (Houtman Abrolhos Is.) 119-88

Houtman Abrolhos Is. 614-85, 413-84

***Acropora selago*** (Studer, 1878)

Veron and Wallace (1984): 283-285, figs. 688-697, 1214.

Uncommon, restricted to mid and lower reef slopes.

Records: Ashmore Reef 496-86, 515-86 (lagoon, outer slope, 12-20m)  
Scott Reef 618-85, 621-85, 623-85, 624-85, 620-85 (outer slope)  
Rowley Shoals V  
Dampier Archipelago 619-85, 622-85  
Northern Ningaloo Reefs 466-81, 518-81, 177-81 (lagoon, 6-9m; outer slope)  
Wallabi Group (Houtman Abrolhos Is.) 31-88, 32-88  
Easter Group (Houtman Abrolhos Is.) 33-88, 34-88, 35-88 (15m)  
Port Gregory 774-85  
Rottnest I. 2-88 (1m)

***Acropora yongei*** Veron & Wallace, 1984

Veron and Wallace (1984): 293-298, figs. 719-732, 1218, 1219.

Usually uncommon, but forms large colonies at the Houtman Abrolhos Is. (Veron 1986b, p. 171, fig. 1.)

Records: Ashmore Reef V  
Scott Reef V  
Rowley Shoals 353-83, 429-83 (lagoon, 9-18m and outer slope, 15-30m)  
Dampier Archipelago 657-85, 316-84, 711-85  
Ningaloo Reefs (EPA)  
Wallabi Group (Houtman Abrolhos Is.) V  
Port Gregory 658-85

***Acropora donei*** Veron & Wallace, 1984

Veron and Wallace (1984): 286-289, figs. 698-709, 1215.

Uncommon throughout range; forms large sprawling pale or dark brown colonies at the Houtman Abrolhos Is.

Records: Ashmore Reef  
Cartier Reef 474-86  
Troughout I.  
Scott Reef V  
Rowley Shoals 246-83, 321-83 (lagoon, 6m and outer slope, 16-35m)  
Wallabi Group (Houtman Abrolhos Is.) 714-85, 101-88

***Acropora microclados*** (Ehrenberg, 1834)

Veron and Wallace (1984): 302-306, figs. 744-755, 1223-1224.

Records: Rowley Shoals 327-83, 497-83, 326-83, 346-83, 278-83, 344-83 (outer slope, 15-35m)  
Ningaloo Reefs V

***Acropora dendrum*** (Bassett-Smith, 1890)

Veron and Wallace (1984): 290-292, figs. 710-718, 1216, 1217.

Rare; records are tentative.

Records: Bundegi Reef, Exmouth Gulf  
Houtman Abrolhos Is. 395-84, 54-87 (3m)

***Acropora cytherea*** (Dana, 1846)

Veron and Wallace (1984): 298-302, figs. 733-743, 1220-1222.

Common only on NW Shelf reefs.



Records: Ashmore Reef 701-86 (outer slope, 12-20m)  
Scott Reef 681-85, 682-85 (outer slope)  
Rowley Shoals 473-83, 277-83, 330-83 (lagoon; outer slope, 16-35m)  
Dampier Archipelago 175-73 (outer slope, 5-8m)  
Northwest Cape

***Acropora paniculata*** Verrill, 1902

Veron and Wallace (1984): 306-310, figs. 756-765.

Known only from Ashmore Reef on the west coast.

Records: Ashmore Reef 558-86

***Acropora hyacinthus*** (Dana, 1846)

Veron and Wallace (1984): 310-314, figs. 766-774, 1227-1229.

Common throughout the distribution range south to the Houtman Abrolhos Is. where colonies are indistinguishable from those of the Great Barrier Reef. The record from Green Head is the southern-most mainland distribution limit for *Acropora*. Colonies at the Houtman Abrolhos Is. are unusual in having polyps extended day and night.

Records: Ashmore Reef 621-86, 667-86, 703-86 (lagoon, outer slope, 10-20m)  
Troughton I. 600-85  
Cassini I. 594-85, 597-85  
Scott Reef V  
Rowley Shoals V  
Dampier Archipelago 593-85, 348-84, 16-76, 17-76, 595-85, 5-72, 596-85, 347-84, 90-73, 225-74, 178-73, 83-73, 69-74, 599-85, 720-85, 180-73, 145-73, (reef flat; reef edge; outer slope, 3-6m)  
Montebello Is. 100-81 (3-4m)  
Barrow I. 238-74 (back reef)  
Bundegi Reef, Exmouth Gulf 534-81, 537-81 (2-4m)  
Northern Ningaloo Reefs 184-77, 187-77, 62-81 (reef flat)  
Southern Ningaloo Reefs 598-85  
Bernier I. 152-81, 743-81 (intertidal; 0-3m)  
Wallabi Group (Houtman Abrolhos Is.) 97-88, 103-88, 106-88  
Easter Group (Houtman Abrolhos Is.) V  
Houtman Abrolhos Is. 470-84  
Green Head

***Acropora spicifera*** (Dana, 1846)

Veron (1986b): 176

The most abundant reef flat and upper slope species of the Houtman Abrolhos Is. where colonies > 3 m diameter are common. These have dark colours with pale branchlet tips, except for colonies in very shallow water which are fawn. Like *A. hyacinthus*, polyps are extended day and night.

Records: Dampier Archipelago (EPA)  
Middle Ningaloo Reefs 67-72 (back reef)  
Southern Ningaloo Reefs 548-81 (lagoon)  
South Passage, Shark Bay 577-79 (3-5m)  
North I. (Houtman Abrolhos Is.) 671-85 (reef flat)  
Wallabi Group (Houtman Abrolhos Is.) 198-74, 668-85, 210-74, 179-74, 323-78 (lagoon, 1-2m)

Easter Group (Houtman Abrolhos Is.) 73-73, 40-73, 49-73, 131-88 (reef flat, reef slope, 1-3m)

Pelsaert Group (Houtman Abrolhos Is.) 672-85

Houtman Abrolhos Is. 415-84, 475-84, 669-85, 670-85, 438-84, 479-84, 998-85

***Acropora anthocercis*** (Brook, 1893)

Veron and Wallace (1984): 314-318, figs. 775-783, 1230-1232.

Common only at the Ningaloo Reefs.

Records: Ashmore Reef V

Scott Reef V

Barrow I.

Dampier Archipelago 20-76 (outer slope)

Middle Ningaloo Reefs 876-85, 839-85 (lagoon, 5-12m)

Wallabi Group (Houtman Abrolhos Is.) V

***Acropora latistella*** (Brook, 1892)

Veron and Wallace (1984): 318-322, figs. 784-795, 1233, 1234.

Common on upper reef slopes throughout the distribution range but forms extensive plates only at the Houtman Abrolhos Is. where they are usually dark colours.

Records: Ashmore Reef 479-86, 728-86 (lagoon, 3-5m; reef flat)

Troughton I. 659-85, 667-85

Broome 480-83 (intertidal pool)

Scott Reef 647-85 (reef slope)

Rowley Shoals 496-83, 242-83 (lagoon 6m and outer slope, 15-30m)

Dampier Archipelago 645-85, 648-85, 6-72 (intertidal pool; reef slope)

Barrow I. 234-74 (back reef)

Bundegi Reef, Exmouth Gulf 538-81 (2-4m)

Northern Ningaloo Reefs 184-81, 469-81, 480-81, 180-81, 182-81, 186-77, 84-81 (reef flat; back reef; lagoon, 1-9m)

Dorre I. 746-81 (0-4m)

Wallabi Group (Houtman Abrolhos Is.) 646-85, 181-74, 88-88 (1-2m)

Easter Group (Houtman Abrolhos Is.) 46-73, 69-73 (reef flat; 5m)

Pelsaert Group (Houtman Abrolhos Is.) 666-85 (1-2m)

Houtman Abrolhos Is. 643-85, 644-85, 651-85, 652-85, 779-85

***Acropora subulata*** (Dana, 1846)

Veron and Wallace (1984): 322-325, figs. 796-803, 1235.

Records: Ashmore Reef 504-86, 600-86, 530-86, 686-86 (outer slope, 10-20m)

Scott Reef V

Rowley Shoals 328-83, 244-83, 247-83 (lagoon 6m; outer slope, 15-30m)

Dampier Archipelago 170-73, 649-85, 653-85, 655-85, 656-85 (outer slope)

Montebello Is. 95-81 (lagoon, 2-3m)

Middle Ningaloo Reefs 808-85

North I. (Houtman Abrolhos Is.) 660-85 (reef flat)

Wallabi Group (Houtman Abrolhos Is.) V

Easter Group (Houtman Abrolhos Is.) 70-73 (reef slope, 9m)

Pelsaert Group (Houtman Abrolhos Is.) 907-81, 650-85 (back reef)

Houtman Abrolhos Is. 436-84

Port Gregory 654-85

***Acropora nana*** (Studer, 1878)

Veron and Wallace (1984): 325-327, figs. 804-807, 1236.

Rare, except for some exposed upper reef slopes and reef flats of NW Shelf reefs.

Records: Ashmore Reef 714-86 (reef flat, 0m)  
Scott Reef V  
Rowley Shoals 305-83 (outer slope, 16-35m)  
Dampier Archipelago (EPA)  
Middle Ningaloo Reefs 842-85 (lagoon, 5-12m)

***Acropora aculeus*** (Dana, 1846)

Veron and Wallace (1984): 328-332, figs. 808-818, 1237-1239.

Usually uncommon throughout the distribution range. Corallites are larger than usual for Great Barrier Reef colonies. Colonies at coastal localities and the Houtman Abrolhos Is. are pale brown in colour.

Records: Rowley Shoals 335-83 (outer slope, 15-30m)  
Dampier Archipelago 346-84  
Middle Ningaloo Reefs V  
Wallabi Group (Houtman Abrolhos Is.) 429-77, 244-78 (lagoon, 7-20m)  
Easter Group (Houtman Abrolhos Is.) 44-73 (reef slope, 3m)  
Pelsaert Group (Houtman Abrolhos Is.) 323-79 (4-5m)  
Houtman Abrolhos Is. 480-84, 478-84, 1000-85  
Port Gregory V

***Acropora cerealis*** (Dana, 1846)

Veron and Wallace (1984): 334-339, figs. 822-839, 1240, 1241.

Common at tropical localities, rare at the Houtman Abrolhos Is.

Records: Ashmore Reef V  
Scott Reef V  
Rowley Shoals V  
Dampier Archipelago 7-72 (intertidal pool)  
Barrow I. 235-74 (back reef)  
Middle Ningaloo Reefs 840-85, 844-85, 875-85 (lagoon, 5-12m)  
Houtman Abrolhos Is. 717-85

***Acropora nasuta*** (Dana, 1846)

Veron and Wallace (1984): 339-343, figs. 835-845, 1242, 1243.

Common on upper reef slopes throughout the distribution range.

Records: Ashmore Reef V  
Scott Reef 617-85 (reef slope)  
Rowley Shoals 314-83 (outer slope, 16-35m)  
Dampier Archipelago 351-84, 616-85  
Barrow I. 233-74 (back reef)  
Montebello Is. 94-81, 109-81 (lagoon, 2-4m)  
Northern Ningaloo Reefs 183-81, 213-81 (reef flat; lagoon)  
Wallabi Group (Houtman Abrolhos Is.) 189-74 (1-2m)  
Easter Group (Houtman Abrolhos Is.) V

***Acropora valida*** (Dana, 1846)

Veron and Wallace (1984): 346-350, figs. 850-862, 1244-1247.

Common throughout the distribution range with the same colour variations that occur along eastern Australia.

Records: Ashmore Reef V  
Scott Reef V  
Rowley Shoals 357-83, 329-83 (reef flat; outer slope, 15-30)

Dampier Archipelago 75-73, 82-73, 784-85 (outer slope, 6-9m)  
Middle Ningaloo Reefs 880-85, 878-85 (reef flat; lagoon, 5-12m)  
South Passage Shark Bay 589-79 (3-5m)  
Wallabi Group (Houtman Abrolhos Is.) 707-85, 77-88, 109-88, 110-88  
Easter Group (Houtman Abrolhos Is.) 123-88, 126-88

***Acropora clathrata*** (Brook, 1891)

Veron and Wallace (1984): 360-364, figs. 889-899, 1254-1256.

Usually common on upper reef slopes throughout the distribution range.

Records: Ashmore Reef 521-86, 690-86 (outer slope, 10-20m)  
Cassini I. 676-85  
Scott Reef V  
Rowley Shoals V  
Dampier Archipelago (EPA)  
Passage Is. 96-81 (2-5m)  
Northern Ningaloo Reefs 519-81 (lagoon, 6-9m)  
Middle Ningaloo Reefs 908-85, 675-85 (outer slope, 8-20m)

***Acropora divaricata*** (Dana, 1846)

Veron and Wallace (1984): 364-370, figs. 900-915, 1257-1259.

Common at NW Shelf reefs. Records from coastal localities are tentative only.

Records: Ashmore Reef 472-86, 480-86, 569-86 (outer slope, 10-20m)  
Scott Reef V  
Dampier Archipelago (EPA)  
Montebello Is.  
Northwest Cape  
Middle Ningaloo Reefs 883-85, 843-85  
Bundegi Reef, Exmouth Gulf 544-81

***Acropora solitaryensis*** Veron & Wallace, 1984

Veron and Wallace (1984): 370-373, figs. 916-929, 1260.

Common only at the Houtman Abrolhos Is. and Dampier Archipelago (Veron 1986b, p. 190, figs. 2,3). At both these localities colonies may consist of whorls of solid plates with almost no development of branchlets. Most colonies are indistinguishable from those of Lord Howe and the Solitary Islands of eastern Australia.

Records: Ashmore Reef 827-86 (outer slope, 10-20m)  
Bonaparte Archipelago  
Lacepede Is. 465-83  
Rowley Shoals V (outer slope, 12-15m)  
Dampier Archipelago 323-84, 984-85, 988-85, 990-85  
Dorre I. 748-81 (0-4m)  
Wallabi Group (Houtman Abrolhos Is.) 169-78, 96-88 (30m)  
Easter Group (Houtman Abrolhos Is.) 14-73, 124-88, 125-88 (reef flat)  
Houtman Abrolhos Is. 674-85, 986-85, 992-85  
Port Gregory 991-85  
Port Denison 985-85

***Acropora stoddarti*** Pillai & Scheer, 1976

Pillai and Scheer (1976): 27-28 pl. 5, figs. 1,2; pl. 6, figs. 1-3.

Often the dominant species of lower reef slopes of the Houtman Abrolhos Is., uncommon throughout the remainder of the distribution range.

Records: Scott Reef 680-85 (reef slope)  
Rowley Shoals 337-83, 446-83 (outer slope, 10-30m)  
Dampier Archipelago 353-84  
Passage Is. 98-81 (2-5m)  
Wallabi Group (Houtman Abrolhos Is.) 168-78, 319-78, 679-85, 212-74, 49-87, 51-87, 52-87, (20-30m)  
Easter Group (Houtman Abrolhos Is.) 62-73, 428-77 (9-38m)  
Houtman Abrolhos Is. 677-85, 679-85, 678-85, 989-85, 994-85, 995-85, 996-85, 997-85

***Acropora subglabra*** (Brook, 1891)

Veron and Wallace (1984): 378-382, figs. 940-949, 1263, 1264.

Recorded only from protected lagoons of NW Shelf reefs where it may be dominant in restricted areas. Colonies usually have yellow branchlet tips, as have those on the Great Barrier Reef.

Records: Ashmore Reef 675-85 (lagoon, 10-13m)  
Scott Reef 612-85, 613-85, 702-85, 791-85 (lagoon, 6-12m and reef slope)  
Rowley Shoals 248-83, 386-83, 203-83, 449-83, 251-83, 23-84 (lagoon, 1-18m)

***Acropora elseyi*** (Brook, 1892)

Veron and Wallace (1984): 385-390, figs. 962-976, 1265-1268

Recorded only from NW Shelf reefs.

Records: Ashmore Reef 473-86, 497-86, 578-86 (lagoon, outer slope, 10-20m)  
Scott Reef 661-85, 662-85 (outer slope, 12-15m)

***Acropora longicyathus*** (Edwards & Haime, 1860)

Veron and Wallace (1984): 392-395, figs. 977-990, 1269, 1270.

Observed only in protected lagoons of NW Shelf reefs.

Records: Ashmore Reef 577-86, 559-86 (lagoon, 0-18m)  
Scott Reef V  
Rowley Shoals 206-83 (lagoon, 1-8m)  
Middle Ningaloo Reefs V

***Acropora loripes*** (Brook, 1892)

Veron and Wallace (1984): 397-403, figs. 995-1009

Known on the west coast from only two specimens which have smaller corallites than usually found on Great Barrier Reef coralla.

Records: Ashmore Reef 508-86 (lagoon, 0-6m)  
Ningaloo Reefs (EPA)

***Acropora granulosa*** (Edwards & Haime, 1860)

Veron and Wallace (1984): 405-408, figs. 1018-1026, 1275-1277.

Common at most tropical localities, rare at the Houtman Abrolhos Is. where it occurs only on lower slopes.

Records: Ashmore Reef  
Scott Reef 610-85 (outer slope)  
Rowley Shoals 293-83, 367-83, 302-83 (outer slope 16-35m)  
Seringapatam Reef 611-85 (outer slope)  
Middle Ningaloo Reefs V  
Wallabi Group (Houtman Abrolhos Is.) 427-77  
Easter Group (Houtman Abrolhos Is.) 63-73, 115-88 (12m)  
Houtman Abrolhos Is. 394-84, 477-84



***Acropora caroliniana*** Nemenzo, 1976

Veron and Wallace (1984): 409-412, figs. 1027-1034, 1278.

Known only from the Rowley Shoals and Ashmore Reef, where it is rare.

Records: Ashmore Reef

Rowley Shoals 198-83 (lagoon, 1-8m)

***Acropora willisae*** Veron & Wallace, 1984

Veron and Wallace (1984): 412-416, figs. 1035-1044, 1279

Although uncommon on the Great Barrier Reef, this is a dominant species of shallow reef flats of the Ningaloo Reefs and is common at the Houtman Abrolhos Is. Colonies are mostly brown or fawn in colour < 0.5m diameter.

Records: Seringapatam Reef (outer slope) V

Middle Ningaloo Reefs 819-85, 882-85 (lagoon, 5-12m)

Wallabi Group (Houtman Abrolhos Is.) 111-88

Easter Group (Houtman Abrolhos Is.) 134-88

Houtman Abrolhos Is. 392-84, 999-85

***Acropora florida*** (Dana, 1846)

Veron and Wallace (1984): 416-420, figs. 1045-1055, 1280-1282.

Common throughout the distribution range. Colonies from NW Shelf reefs (Veron 1986b, p. 204, fig. 5, at Scott Reef) are similar to those of the Great Barrier Reef in structure and colour, while those from coastal localities (*ibid.* fig. 4 at Dampier Archipelago) and the Houtman Abrolhos Is. become prostrate, with flattened branches tending to become plate-like. The latter are brown, fawn, or more commonly, bright green. The latter also tend to have slightly larger corralites and represent a distinct geographic sub-species not observed elsewhere in the Indo-west Pacific.

Records: Ashmore Reef 635-86 (lagoon, 3-5m)

Scott Reef V

Rowley Shoals 228-83 (lagoon, 1-8m)

Dampier Archipelago 4-72, 173-73, 221-74, 167-74, 356-84, 8-72, 608-85, (outer slope, 2-3m)

Montebello Is. 93-81, 99-81, 105-81, 102-81 (2-4m)

Passage Is. 103-81 (2-5m)

Bundegi Reef, Exmouth Gulf 539-81 (2-4m)

Northern Ningaloo Reefs 176-81, 181-81, 250-77, 248-77, 197-77, 249-77 (lagoon, 2-3m)

Middle Ningaloo Reefs 602-85, 475-78 (reef flat)

Southern Ningaloo Reefs 546-81 (back reef)

Dorre I. 149-81 (0-5m)

South Passage, Shark Bay 583-79, 580-79, 586-79 (3-12m)

Dirk Hartog I. 587-79 (2-3m)

Wallabi Group (Houtman Abrolhos Is.)

Easter Group (Houtman Abrolhos Is.) 7-73, 55-87, 56-87 (reef flat)

Pelsaert Group (Houtman Abrolhos Is.) 601-85, 636-85, 603-85 (2-3m)

Houtman Abrolhos Is. 398-84, 609-85

***Acropora sarmentosa*** (Brook, 1892)

Veron and Wallace (1984): 420-423, figs. 1056-1061, 1283-1286.

Uncommon throughout the distribution range.

Records: Dampier Archipelago

Bundegi Reef, Exmouth Gulf

Middle Ningaloo Reefs 845-85, 838-85, 874-85, 841-85, 879-85 (lagoon 5-12m)

Wallabi Group (Houtman Abrolhos Is.) 86-88

***Acropora exquiseta*** Nemenzo, 1971

A finely branched species common on the north-west shelf; not recorded from the west coast.

Records: Ashmore Reef 584-86 (reef flat lagoon, 4m)  
Scott Reef 713-85  
Rowley Shoals

***Acropora* sp. 1**

This is a distinctive species with affinities with the *horrida* group. It has only been recorded at the Houtman Abrolhos Islands.

Record: Wallabi Group (Houtman Abrolhos Islands) 1001-85, 50-87

GENUS *ASTREOPORA* de Blainville, 1830

As on the Great Barrier Reef, *A. myriophthalma* is by far the most common *Astreopora* of the west coast. The most notable difference between the two faunas is the absence of *A. explanata* in the east.

***Astreopora myriophthalma*** (Lamarck, 1816)

Veron and Wallace (1984): 426-429, figs. 1064-1068, 1287-1289

Previous records from Western Australia: King Sound (as *A. kenti* BMNH 95-7-22-1) Bernard (1896), Lamberts (1982),? *myriophthalma*, Veron and Wallace (1984).

Common throughout range. Colonies are massive or, at the Houtman Abrolhos Is., are submassive, flat, with explanate borders.

Records: Ashmore Reef V  
Scott Reef 543-85 (lagoon, 5-8m)  
Rowley Shoals 544-85, 392-83, 398-83 (lagoon, 5-18m)  
Dampier Archipelago 423-78, 548-85, 82-74, 25-72, 83-74 (outer slope)  
Montebello Is.  
Passage Is. 483-80, 401-80 (reef flat; outer slope, 2-5m)  
Northern Ningaloo Reefs 350-77 (reef flat)  
Wallabi Group (Houtman Abrolhos Is.) 216-74, 261-78, 256-78, 257-78, 258-78, 260-78, 265-78, 419-77 (lagoon, 1-18m)  
Easter Group (Houtman Abrolhos Is.) 895-81, 902-81, 23-73, 896-81 (lagoon 1-2m)  
Pelsaert Group (Houtman Abrolhos Is.) 542-85 (back reef)  
Houtman Abrolhos Is. 545-85, 549-85

***Astreopora gracilis*** (Bernard, 1896)

Veron and Wallace (1984): 432-435, figs. 1077-1081.

Previous records from Western Australia: North-western Australia, Veron and Wallace (1984).

Uncommon throughout the distribution range.

Records: Ashmore Reef V  
Scott Reef 552-85 (reef slope)  
Dampier Archipelago V  
Wallabi Group (Houtman Abrolhos Is.) 162-78, 263-78, 149-88 (lagoon, 2-30m)  
Easter Group (Houtman Abrolhos Is.) 420-77 (lagoon, 2-3m)  
Houtman Abrolhos Is. 550-85

***Astreopora explanata* Veron, 1985**

Veron (1985): 153-155, figs. 5,6.

Common at the Houtman Abrolhos Is., becoming less common in tropical localities.

Previous records from Western Australia: Beacon I., Houtman Abrolhos (type, WAM 161-84); Dampier Archipelago; Rowley Shoals, Veron (1985).

Records: Ashmore Reef

Scott Reef 547-85 (outer slope)

Rowley Shoals 414-83, 551-85, 410-83, 413-83, 409-83 (lagoon, 9-18m; outer slope 10-25m)

Dampier Archipelago

Middle Ningaloo Reefs 856-85 (lagoon, 5-12m)

Wallabi Group (Houtman Abrolhos Is.) 161-85 (holotype), 186-74, 262-78, 264-78, 57-88 (lagoon, 2-30m)

Houtman Abrolhos Is. 546-85

***Astreopora ocellata* Bernard, 1896**

Veron and Wallace (1984): 439-441, figs. 1095-1097

Rare throughout the distribution range and difficult to separate from *A. myriophthalma* unless colonies occur together.

Previous records from Western Australia: Baudin I., W.A., Bernard (1896).

Records: Ashmore Reef 663-86 (lagoon, 0-20m)

Kimberley Coast

Montebello Is. 397-80 (3-4m)

Northern Ningaloo Reefs 617-81, 565-81 (lagoon, 6-9m)

Middle Ningaloo Reefs 555-78 (lagoon)

Wallabi Group (Houtman Abrolhos Is.) 259-78 (lagoon, 2-3m)

**FAMILY PORITIDAE Gray, 1842**

**GENUS PORITES Link, 1807**

There are likely to be more *Porites* species on the west coast than recorded here, as several collected specimens remain unidentified or identified with doubt. Most *Porites* species from temperate localities form small colonies and only *P. lutea* is known to form large colonies at the Houtman Abrolhos Islands. Specimens of most species from tropical reefs are indistinguishable from those from the Great Barrier Reef.

The presence of *P. eridani* and probably a second *P. cylindrica*-like species at Ashmore Reef, indicate an Indonesian influence not found elsewhere in Australia.

***Porites solida* (Forskål, 1775)**

Veron and Pichon (1982): 12-15, figs. 3-8.

Common throughout tropical localities.

Records: Scott Reef 432-85, 452-85 (reef slope, 10-15m)

Rowley Shoals 294-83 (outer slope, 15-35m)

Dampier Archipelago 433-85, 447-85, 295-84, 300-84

Middle Ningaloo Reefs

Houtman Abrolhos Is. 374-84

***Porites lobata*** Dana, 1846

Veron and Pichon (1982): 16-18, figs. 9-13.

Common throughout the distribution range. Colonies are large and massive except at the Houtman Abrolhos Is. where they are small and flat.

Records: Ashmore Reef 527-86, 879-86

Admiralty Gulf 142-77 (intertidal)

Scott Reef 471-85, 453-85 (reef slope)

Rowley Shoals

Dampier Archipelago 440-85, 982-79, 105-73, 589-78, 136-74 (reef flat; 0-3m)

Montebello Is.

Barrow I.

Northern Ningaloo Reefs 55-81 (reef flat; lagoon, 3m)

Middle Ningaloo Reefs 66-72, 421-85, 921-85 (reef flat; lagoon 5-12m)

South Passage, Shark Bay 517-79, 516-79 (3-9m)

Dirk Hartog I. 518-79 (4m)

Wallabi Group (Houtman Abrolhos Is.) 371-77, 268-78, 449-86, 450-85, 151-88 (reef flat; lagoon, 1-3m)

***Porites murrayensis*** Vaughan, 1918

Veron (1986b): 223

Previous records from Western Australia: Scott Reef and the Rowley Shoals (Veron 1986a)

Records: Scott Reef 439-85

Rowley Shoals

Dampier Archipelago (EPA)

***Porites lutea*** Edwards & Haime, 1860

Veron and Pichon (1982): 25-28, figs. 27-32.

Common throughout the distribution range. The only species of *Porites* known to form very large colonies at the Houtman Abrolhos Is. (one colony N of Long I. (Wallabi Group) measures 3-4m high and >4m diameter).

Records: Ashmore Reef 902-86, 726-76 (lagoon; reef slope)

Scott Reef 435-85 (reef slope)

Rowley Shoals 499-84, 502-84, 501-84 (lagoon, 2-8m)

Montebello Is. 395-80 (3-4m)

Dampier Archipelago 431-85, 591-78, 6-76, 592-78, 294-84 (reef slope, 3-6m)

Barrow I. 245-74, 259-74 (back reef)

Northern Ningaloo Reefs 188-81, 56-81, 187-81, 549-81, 204-81, 42-78, 43-78, 45-78 (reef flat; lagoon, 2-4m)

Southern Ningaloo Reefs, 590-78 (lagoon, 3m)

South Passage, Shark Bay 512-79 (2m)

Wallabi Group (Houtman Abrolhos Is.) 369-77 (reef flat)

Easter Group (Houtman Abrolhos Is.) 898-81 (1m)

Rottneest I. 174-74 (2m)

***Porites stephensoni*** Crossland, 1952

Veron and Pichon (1982): 28, figs. 33-36.

Recorded on the west coast only from Ashmore Reef.

Record: Ashmore Reef 545-86, 765-86, 794-86 (reef flat; lagoon; outer slope, 0-20m)

***Porites lichen*** Dana, 1846

Veron and Pichon (1982): 43-47, figs. 61-76

Common, except at the Houtman Abrolhos Is. where colonies are common only on some reef slopes. These are brown or purple in colour.

Records: Ashmore Reef 486-86, 669-86, 921-86 (outer slope, 10-20m)  
Scott Reef 454-85, 449-85 (lagoon, 2-8m; reef slope)  
Rowley Shoals 448-85 (reef flat)  
Dampier Archipelago 445-85, 243-73, 38-72, 292-84, 293-84 (reef front)  
Northern Ningaloo Reefs 18-81 (6m)  
Middle Ningaloo Reefs 877-85, 827-85, 850-85, 816-85, 865-85 (lagoon, 5-12m)  
Wallabi Group (Houtman Abrolhos Is.) V  
Houtman Abrolhos Is. 373-84, 375-84

***Porites heronensis*** Veron, 1985

Veron (1985): 155-158, figs. 7-9.

Common only at Dampier Archipelago.

Previous records from Western Australia: Dampier Archipelago; Houtman Abrolhos, both Veron (1985).

Records: Dampier Archipelago 446-85, 442-85, 477-85, 451-85, 238-73, 231-73, 508-80, 296-84 (reef front, 6-9m)  
North I. (Houtman Abrolhos Is.) 475-85 (reef flat)

***Porites cylindrica*** Dana, 1846

Veron and Pichon (1982): 35-38, figs. 48-53.

Common throughout the distribution range where it usually occurs with *P. nigrescens* (Veron 1986b, p. 227, fig. 4, at Scott Reef). A second *cylindrica*-like species may occur on NW Shelf reefs.

Records: Ashmore Reef 524-86, 568-86, 629-86 (lagoon, 0-18m)  
Scott Reef V (lagoon)  
Rowley Shoals 427-83, 434-85 (lagoon, 2-18m)  
Dampier Archipelago 438-85, 491-78 (4m)  
Montebello Is. 399-80, 400-80 (lagoon, 2-4m)  
Northern Ningaloo Reefs 238-77, 239-77, 240-77, 43-81, 54-81, 35-81 (reef flat; outer slope, 3-6m)  
North West Cape 530-81 (1-2m)  
Middle Ningaloo Reefs 941-85, 948-85, 866-85 (lagoon, 2-12m)

***Porites nigrescens*** Dana, 1848

Veron and Pichon (1982): 38-43, figs. 53-60.

Common throughout the distribution range. Shows considerable morphological variation in both branch shape and corallite details. Usually bright yellow in colour.

Records: Ashmore Reef 501-86, 544-86, 591-86, 924-86, 556-86, 724-86 (lagoons, outer slopes, 0-18m)  
Scott Reef V  
Rowley Shoals 437-85, 456-85, 476-85 (lagoon, 2-8m)  
Middle Ningaloo Reefs 825-85, 867-85 (lagoon, 5-12m)

***Porites vauhani*** Crossland, 1952

Veron and Pichon (1982): 53-57, figs. 91-100.

Previous records from Western Australia: Baudin I. (as *Porites* NWA 4, BMNH 92.1.16.1) Bernard (1905)



Occurs only on NW Shelf reefs, where it is common.

Records: Ashmore Reef 529-86, 484-86, 555-86, 718-86, 758-86, 823-86, 830-86, 844-86, 876-86, 566-86, 927-86 (reef flats, lagoons, outer slopes)  
Scott Reef V  
Rowley Shoals 443-85 (outer slope, 15m)

***Porites eridani*** Umbgrove, 1940

Umbgrove (1940): 306, Pl xxxiii, fig. 4, Pl xxxv, fig. 2

Ashmore Reef is the only known Australian locality for this species. It occurs in Indonesia and is common in the Philippines.

Records: Ashmore Reef 514-86, 519-86, 539-86, 542-86, 579-86, 580-86

***Porites rus*** (Forskål, 1775)

Veron and Pichon (1982): 58-62, figs. 101-114.

Coralla show no differences from those of the Great Barrier Reef.

Records: Ashmore Reef 560-86, 679-86, 792-86 (lagoon, outer slope)  
Scott Reef V  
Rowley Shoals  
Dampier Archipelago 748-85

***Porites* sp. 1**

Probably an undescribed species which also occurs on the Great Barrier Reef. Colonies are readily recognised *in situ* by having polyps normally extended during the day (illustrated, Veron 1986b, p. 218, fig. 2, at Dampier Archipelago).

Records: Ashmore Reef 878-86 (lagoon 0-20m)  
Scott Reef 59-87  
Dampier Archipelago 588-78  
Wallabi Group (Houtman Abrolhos Is.) 269-78, 58-87 (lagoon, 15m)  
Easter Group (Houtman Abrolhos Is.) 372-77 (back reef)

***Porites* sp. 2**

This sub-branching species is common at Dampier Archipelago where colonies are a mottled green and pale cream colour. It is also common at Sri Lanka (de Silva pers. comm.), but has not been recorded from the Pacific. It is primarily characterised by small corallites which have septa so irregular that the *Porites* pattern can seldom be seen.

Records: Dampier Archipelago 446-85  
Montebello Islands 399-80, 400-80  
Northern Ningaloo Reefs 239-77, 816-85  
Wallabi Group (Houtman Abrolhos Is.) 60-85

***Porites* sp. 3**

A third sub-arborescent *Porites* appear to be a distinct species from coastal localities.

Records: Dampier Archipelago 446-85  
Montebello Is. 400-80, 399-80  
Middle Ningaloo Reefs 816-85, 850-85  
Wallabi Group (Houtman Abrolhos Is.) 60-87

GENUS GONIOPORA de Blainville, 1830

***Goniopora columna*** Dana, 1846

Veron and Pichon (1982): 77-80, figs. 139-147, 293-296, 313, 317.

Common throughout the distribution range. Colonies are usually grey at the Houtman Abrolhos Is.

Records: Ashmore Reef 716-86, 944-86 (lagoon, 0-18m)  
Scott Reef 473-85 (lagoon)  
Dampier Archipelago 457-85, 466-85 (lagoon)  
Montebello Is. 387-80 (lagoon, 2-4m)  
Middle Ningaloo Reefs 800-85 (lagoon, 5-12m)  
Wallabi Group (Houtman Abrolhos Is.) 102-88  
Easter Group (Houtman Abrolhos Is.) 129-88, 130-88  
Houtman Abrolhos Is. 461-85, 468-85, 489-85

***Goniopora stokesi*** Edwards & Haime, 1851

Veron and Pichon (1982): 70-73, figs. 125-130.

Uncommon throughout the distribution range except for the Dampier Archipelago. Usually restricted to turbid water.

Records: Ashmore Reef V  
Dampier Archipelago 606-73 (2-3m)  
Wallabi Group (Houtman Abrolhos Is.) 458-77 (20-30m)  
Houtman Abrolhos Is. 267-84  
Port Gregory 490-84

***Goniopora lobata*** Edwards & Haime, 1860

Veron and Pichon (1982): 74-77, figs. 131-138, 289-292.

Common throughout the distribution range.

Records: Ashmore Reef V  
Scott Reef 479-85 (lagoon, 2-6m)  
Admiralty Gulf 452-86 (intertidal)  
Dampier Archipelago 991-79, (intertidal)  
Bundegi Reef, Exmouth Gulf 595-81, 438-81 (2-4m)  
Middle Ningaloo Reefs 817-85, 818-85 (lagoon, 5-12m)  
Shark Bay 676-81 (2m)  
Dirk Hartog I. 167-81 (4m)

***Goniopora pendulus*** Veron, 1985

Veron (1985): 160-163, figs. 12, 13.

Common on lower reef slopes of the Dampier Archipelago (Veron 1986b, p. 242, fig. 1) and Houtman Abrolhos Is. (*ibid.* fig. 2).

Previous records from Western Australia: Houtman Abrolhos (WAM 164-84, holotype); Dampier Archipelago, both Veron (1985).

Records: Ashmore Reef V  
Kimberley coast  
Dampier Archipelago 465-85  
Wallabi Group (Houtman Abrolhos Is.) 160-78, 241-78, 240-78 (lagoon, 12m)  
Easter Group (Houtman Abrolhos Is.) 164-84 (holotype) 8m, 165-84, (paratype) (17m)  
Pelsaert Group (Houtman Abrolhos Is.) 293-77 (4-5m)  
Cockburn Sound 2-59 (9m)

***Goniopora tenuidens*** Quelch, 1886

Veron and Pichon (1982): 83-86, figs. 155-161, 300-303, 310.

Common throughout the distribution range.

Records: Ashmore Reef 601-86, 671-86, 678-86 (lagoon, 0-6m)  
Admiralty Gulf 149-77 (intertidal)  
Scott Reef 472-85 (reef flat)  
Rowley Shoals 259-83 (lagoon, 6m)  
Dampier Archipelago 302-84  
Passage Is. 372-80 (reef flat)  
Bundegi Reef, Exmouth Gulf 233-77 (reef flat)  
Northern Ningaloo Reefs 694-81, 552-81, 414-81, 551-81 (outer slope, 8-11m)  
Dirk Hartog I. 513-79 (4-5m)  
Wallabi Group (Houtman Abrolhos Is.) V  
Port Gregory 593-84

***Goniopora minor*** Crossland, 1952

Veron and Pichon (1982): 86-88, figs. 162-168, 304, 305.

Common throughout the distribution range, especially the Ningaloo Reefs.

Records: Ashmore Reef 691-86 (lagoon, 0-2m)  
Kimberley coast  
Scott Reef 86-85, 474-85, 464-85, 462-85 (lagoon, 2-8m; outer slope)  
Rowley Shoals 399-83, 233-83, 416-83 (lagoon, 2-18m)  
Dampier Archipelago 467-85, 297-84  
Middle Ningaloo Reefs 929-85, 943-85 (outer slope, 8-20m)

***Goniopora pandoraensis*** Veron and Pichon, 1982

Veron and Pichon (1982): 91-94, figs. 176-183.

Records of this species are doubtful.

Records: Ashmore Reef 846-86 (outer slope, 12-20m)  
Kimberley Coast 226-87, 227-87

***Goniopora palmensis*** Veron and Pichon, 1982

Veron and Pichon (1982): 99-100, figs. 191-198, 319-322 (col.) Veron (1986b): 249.

Previous record from Western Australia: Rowley Shoals, Veron (1986a).

Record: Dampier Archipelago (EPA)

***Goniopora djiboutiensis*** Vaughan, 1907

Veron and Pichon (1982): 67-70 figs. 118-124, 283-288, 308, 309, 315.

Common throughout the distribution range.

Records: Scott Reef V  
Rowley Shoals 404-83 (lagoon, 9-18m)  
Dampier Archipelago  
Wallabi Group (Houtman Abrolhos Is.) 98-88, 107-88  
Houtman Abrolhos Is. 377-84, 376-84

***Goniopora somaliensis*** Vaughan, 1907

Veron and Pichon (1982): 80-81, figs. 148-154.

This species has only been recorded from Ashmore Reef on the west coast where it is common.

Records: Ashmore Reef 754-86, 852-86, 867-86, 926-86 (lagoon, 0-6m, outer slope 6-20m).

***Goniopora stutchburyi*** Wells, 1955

Veron and Pichon (1982): 104-106, figs. 206-212, 326, 327.

Usually restricted to shallow wave-washed biotopes with very low coral cover, where colonies are usually small, encrusting, >100mm diameter.

Previous records from Western Australia: Bassett-Smith Shoal, Holothuria Reef, 16m (as *Goniopora* NWA 2, BMNH 92.1.16.45), Bernard (1903); Adolphus I. (as *Goniopora* NWA 7, BMNH 92.12.1.211) Bernard (1906).

Records: Ashmore Reef 807-86 (outer slope, 6-14m)  
Cartier Reef 806-86 (outer slope, 8-22m)  
Rowley Shoals V  
Lacepede Is. 459-83  
Dampier Archipelago 298-84, 603-78, 772-81, 605-78, 299-84 (2-3m)  
Dirk Hartog I. 507-79 (4m)  
Wallabi Group (Houtman Abrolhos Is.) 336-78, 64-88  
Houtman Abrolhos Is. 271-84, 379-84

***Goniopora* sp. 1**

The single recorded specimen of this species has smaller corallites than any other Australian *Goniopora* except *G. stutchburyi*.

Record: Ashmore Reef 763-86 (reef flat, 0m)

***Goniopora* sp. 2**

The single specimen attributed to this species, from Ashmore Reef, may be an eco-morph of *G. fruticosa* Saville-Kent, 1891, but has smaller corallites than coralla of this species from the Great Barrier Reef.

Record: Ashmore Reef 562-86

***Goniopora* sp. 3**

This third unidentified *Goniopora* is a tentative grouping of specimens only.

Records: Rowley Shoals 243-83 (lagoon, 6m)  
Dampier Archipelago 251-73, 252-73 (outer slope, 2-12m)  
Northern Ningaloo Reefs 230-77, 231-77, 232-77 (reef flat)

**GENUS ALVEOPORA** de Blainville, 1830

*Alveopora* are probably more abundant at the Houtman Abrolhos Islands than on any other Australian reef. They also develop larger colonies at the Houtman Abrolhos Islands than elsewhere.

***Alveopora catalai*** Wells, 1968

Veron and Pichon (1982): 110-113, figs. 216-223, 328.

Recorded only from NW Shelf reefs (Veron 1986b, p. 256, fig. 1) where colonies are indistinguishable from those of the Great Barrier Reef.

Records: Ashmore Reef 617-86 (lagoon, 0-20m)  
Scott Reef 483-85 (lagoon, 9-12m)

***Alveopora gigas* Veron, 1985**

Veron (1985): 163-165, figs. 14, 15.

Common on lower reef slopes of the Houtman Abrolhos Is. (Veron 1986b, p. 258, 259, figs. 1-3).

Previous records from Western Australia: Houtman Abrolhos (WAM 166-84, holotype), Veron (1985).

Records: Wallabi Group (Houtman Abrolhos Is.) 156-78, 50-88 (27-30m)  
Easter Group (Houtman Abrolhos Is.) 425-77, (2-3m) 166-84 (holotype) (lagoon slope, 12m)  
Houtman Abrolhos Is. 428-84, 429-84, 430-84, 431-84, 432-84, 433-84, 434-84, 455-85

***Alveopora allingi* Hoffmeister, 1925**

Veron and Pichon (1982): 114-117, figs. 224-233, 329.

Common in some lagoonal areas of NW Shelf reefs and on lower reef slopes of the Houtman Abrolhos Is.

Records: Scott Reef 469-85 (lagoon, 9-12m)  
Rowley Shoals 422-83, 282-84 (lagoon, 9-18m)  
Northern Ningaloo Reefs 543-81 (2-5m)  
Dirk Hartog I. 35-59, 22-59 (0-1m)  
Wallabi Group (Houtman Abrolhos Is.) 104-188  
Easter Group (Houtman Abrolhos Is.) 422-77, 59-88, 132-88, 133-88 (3-9m)  
Houtman Abrolhos Is. 278-84, 281-84, 481-85, 482-85, 279-84

***Alveopora fenestrata* (Lamarck, 1816)**

Veron and Pichon (1982): 121-123, 242-249, 334-336, 338, 339.

Uncommon over most of the distribution range except at the Houtman Abrolhos Is. where it is frequently found on lower reef slopes.

Records: Ashmore Reef V  
Rowley Shoals 377-83, 415-83, 230-83, 338-83 (lagoon, 2-18m and outer slope, 15-35m)  
Dampier Archipelago 27-72, 584-78 (intertidal; 6m)  
Northern Ningaloo Reefs 22-81 (0-1m)  
Middle Ningaloo Reefs 820-85, 801-85 (lagoon, 5-12m)  
Southern Ningaloo Reefs 583-78 (lagoon, 7m)  
Wallabi Group (Houtman Abrolhos Is.) 188-74, 69-88, (lagoon, 2-3m)  
Pelsaert Group (Houtman Abrolhos Is.) 487-85 (back reef)  
Houtman Abrolhos Is. 272-84, 275-84, 276-84, 280-84, 268-84  
Geraldton 284-84  
Rottneest I. 81-85, 78-72, 14-84, 186-78, 961-85 (1-6m)

***Alveopora verrilliana* Dana, 1872**

Veron and Pichon (1982): 123-125, figs. 250-255, 337-341

Common at the Houtman Abrolhos Is. (Veron 1986b, p. 262, fig. 2) but uncommon elsewhere. These indentifications are tentative as the palisade of exsert trabeculae which characterise coralla from eastern Australia are poorly developed.

Records: Ashmore Reef 489-86, 554-86, 595-86 (outer slope, 8-20m)  
Scott Reef 458-85 (lagoon, 2-6m)  
Northern Ningaloo Reefs 25-81 (outer slope, 3-6m)  
Middle Ningaloo Reefs 910-85 (outer slope, 8-20m)  
Wallabi Group (Houtman Abrolhos Is.) 246-78 (21m)  
Easter Group (Houtman Abrolhos Is.) 62-88, 80-88, 139-88



***Alveopora spongiosa*** Dana, 1846

Veron and Pichon (1982): 126-129, figs. 256-266, 342-345.

Common over the full distribution range, especially at the Houtman Abrolhos Is. (Veron 1986b, p. 263, fig. 1) where large colonies may form whorls.

Records: Ashmore Reef 547-86, 590-86, 619-86, 670-86 (lagoon and outer slope, 0-18m)  
Scott Reef 463-85, 485-85 (lagoon 2-6m; reef slope)  
Rowley Shoals 354-83 (outer slope, 15-30m)  
Middle Ningaloo Reefs 928-85, 924-85, 902-85 (lagoon, 5-12m and outer slope, 8-20m)  
Southern Ningaloo Reefs 587-78 (lagoon, 7m)  
South Passage, Shark Bay 511-79  
Wallabi Group (Houtman Abrolhos Is.) 220-78, 221-78, 152-78, 486-85, 144-88 (1-21m)  
Easter Group (Houtman Abrolhos Is.) 423-77, 424-77 (lagoon, 2-3m)  
Houtman Abrolhos Is. 274-84, 273-84, 270-84

***Alveopora tizardi*** Bassett-Smith, 1890

Veron and Pichon (1982): 130-132, figs. 267-273, 346.

Rare. Because of close similarity with *A. spongiosa*, identifications are tentative only.

Records: Rowley Shoals 283-84, 470-85 (outer slope, 10-35m)  
South Passage, Shark Bay 509-79 (12m)  
Wallabi Group (Houtman Abrolhos Is.) 151-78, 68-88 (2-4m)

**FAMILY SIDERASTREIDAE Vaughan & Wells, 1943**

**GENUS PSEUDOSIDERASTREA Yabe & Sugiyama, 1935**

***Pseudosiderastrea tayami*** Yabe & Sugiyama, 1935

Veron and Pichon (1980): 85-89, figs. 144-147, 749.

Uncommon except intertidally at some coastal localities.

Records: Prince Frederick Harbour 229-87  
Lacepede Is. 466-83  
Broome 491-83 (intertidal)  
Dampier Archipelago 784-81  
Middle Ningaloo Reefs 821-85 (lagoon, 5-12m)

**GENUS PSAMMOCORA Dana, 1846**

Except for some colonies of *P. nierstraszi*, coralla are indistinguishable from those of the Great Barrier Reef.

***Psammocora digitata*** Edwards & Haime, 1851

Veron and Pichon (1976): 30-34, figs. 33-38.

Common in tropical localities (Veron 1986b, p. 271, fig. 2, at the Ningaloo Reefs) where colonies are identical to those of the Great Barrier Reef. Rare at the Houtman Abrolhos Is.

Records: Ashmore Reef 719-86 (lagoon, 0-6m)  
Cassini I. 163-77  
Scott Reef 230-85, 239-85, 240-85 (reef flat; reef slope)  
Rowley Shoals  
Dampier Archipelago 229-85, 235-73, 391-78, 392-78, 393-78, 394-78, 395-78 (lagoon 3-4m and reef front 5-6m)

Northern Ningaloo Reefs 583-81, 479-81, 563-81 (back reef)  
Middle Ningaloo Reefs 450-78, 554-78 (reef flat)  
Southern Ningaloo Reefs 376-78, 444-78 (back reef; lagoon 1m)  
Houtman Abrolhos Is. 390-84

***Psammocora contigua*** (Esper, 1797)

Veron and Pichon (1976): 22-25, figs. 13-22

The most common *Psammocora* of tropical localities; a single colony has been observed at the Houtman Abrolhos Is. Occurs sometimes as finely branched coralloliths at all localities.

Records: Ashmore Reef 495-86

Cartier Reef 478-86 (reef flat, 0m)

Admiralty Gulf 158-77 (intertidal)

Cockatoo I. 228-85

Scott Reef 226-85 (reef flat)

Rowley Shoals 374-83, 235-85 (outer slope, 16-35m)

Dampier Archipelago 41-72, 227-85, 528-80, 256-73, 585-78, 192-84, 359-78, 231-85,  
434-78, 364-84 (reef front, 3-5m)

Passage Is. 474-80 (12m)

Northern Ningaloo Reefs 172-77, 186-81 (reef flat)

Middle Ningaloo Reefs 168-77, 451-78 (reef flat)

Southern Ningaloo Reefs 340-78 (shore reef)

Point Quobba 553-78 (reef flat)

Bernier I. 125-81 (2-4m)

Dorre I. 133-81, 758-81 (0-12m)

Shark Bay 467-79, 765-81 (2-3m)

Dirk Hartog I. 469-79, 470-79, 170-81 (2-5m)

Wallabi Group (Houtman Abrolhos Is.) 108-88

***Psammocora superficialis*** Gardiner, 1898

Veron and Pichon (1976): 27-28, figs. 25-26.

The most common encrusting *Psammocora*.

Records: Ashmore Reef 843-86, 730-86 (outer slope, 6-14m)

Scott Reef 234-85 (lagoon)

Rowley Shoals 280-83, 456-83 (outer slope, 16-35m)

Dampier Archipelago 199-84, 791-81, 236-85, 509-80

Ningaloo Reefs

Shark Bay 714-81 (5-6m)

Wallabi Group (Houtman Abrolhos Is.) 71-88, 147-88

***Psammocora profundacella*** Gardiner, 1898

Veron and Pichon (1976): 35-37, figs. 41-44

Uncommon throughout the distribution range.

Records: Ashmore Reef 723-86, 740-86 (outer slope, 6-14m)

Scott Reef 237-85 (reef slope)

Dampier Archipelago 346-78, 347-78, 349-78, 350-78, 351-78, 352-78, 353-78, 354-78,  
164-74, 81-74, 435-78, 504-80, 156-74 (reef front 5-6m)

Northern Ningaloo Reefs 209-81 (reef flat)

Middle Ningaloo Reefs 915-85, 823-85, 934-85 (lagoon, 5-12m; outer slope, 8-20m)

Wallabi Group (Houtman Abrolhos Is.) 180-74 (1-2m)

Houtman Abrolhos Is. 380-84

***Psammocora haimeana*** Edwards & Haime, 1851

Veron and Pichon (1976): 34-35, figs. 39, 40.

Uncommon throughout the distribution range.

Records: Scott Reef 238-85 (12-15m)

Rowley Shoals 232-85, 233-85, 439-83 (outer slope, 10-35m)

Dampier Archipelago

Ningaloo Reef Tract

Wallabi Group (Houtman Abrolhos Is.) 230-74 (lagoon 1-2m)

***Psammocora nierstraszi*** van der Horst, 1921

Veron and Pichon (1976): 25-27, figs. 23-24.

Rare, recorded only at the Dampier Archipelago and Ashmore Reef.

Records: Ashmore Reef 702-86, 747-86, 735-86, 751-86, 859-86, 875-66, 892-86 (outer slopes, 10-20m)

Dampier Archipelago

***Psammocora explanulata*** van der Horst, 1922

Veron and Pichon (1976): pp. 28-30, figs. 27-32

There are no significant differences between Western Australian coralla and those from the Great Barrier Reef. This distinctive species is rare in the west.

Records: Ashmore Reef 512-86, 599-86, 704-86 (outer slope, 10-20m)

Kimberley Coast

Dampier Archipelago (EPA)

Ningaloo Reefs

Wallabi Group (Houtman Abrolhos Is.) 19-87

***Psammocora* sp. 1**

An unidentified species, not recorded from eastern Australia.

Record: Northern Ningaloo Reefs 6-83

***Psammocora* sp. 2**

Recorded only from Ashmore Reef.

Record: Ashmore Reef 753-86

GENUS ***COSCINARAEA*** Edwards & Haime, 1848

Both extra-tropical Australian species occur on the west coast. Coralla of all species occurring on both east and west coast are indistinguishable.

***Coscinaraea exesa*** (Dana, 1846)

Veron and Pichon (1980): 89-91, figs. 148-151, 750.

Common in some tropical localities, rare at the Houtman Abrolhos Is.

Records: Rowley Shoals 363-83 (reef flat)

Dampier Archipelago 371-84, 361-84, 358-84, 362-84

Middle Ningaloo Reefs 926-85 (outer slope, 8-20m)

Houtman Abrolhos Is. 389-84, 168-85

***Coscinaraea columna*** (Dana, 1846)

Veron and Pichon (1980): 92-94, figs. 152-157, 751.

Common in some tropical localities, rare at the Houtman Abrolhos Is.

Records: Ashmore Reef 672-86, 689-86 (outer slope, 10-20m)

Kimberley Coast

Scott Reef V

Dampier Archipelago 244-73, 363-84, 348-78, 245-73, 369-84 (reef front, 5-9m)

Northern Ningaloo Reefs 558-81 (outer slope, 1-2m)

Middle Ningaloo Reefs 930-85, 927-85 (outer slope, 8-20m)

Shark Bay 766-81, 768-81 (17-18m)

Wallabi Group (Houtman Abrolhos Is.) 95-88

Houtman Abrolhos Is. 386-84

Jurien Bay V

***Coscinaraea mcneilli*** Wells, 1962

Veron and Pichon (1980): 94-98, figs. 158-162.

Restricted to temperate coastal localities from the east to the west coast.

Records: Houtman Abrolhos Is. 384-84

Jurien Bay 483-84

Rottneest I. 102-58 (recorded by Wells as paratype of *C. marshae*), 93-85 (0-3m)

Perth 114-77 (22m)

Fremantle 363-80, 360-80, 361-80, 756-84, 132-73, 191-78, 447-86 (5-12m)

Garden I. 497-77 (33m)

Cockburn Sound 100-58 (recorded by Wells as paratype of *C. marshae*), 351-79, 446-86 (2-3m)

Bunbury 600-84 (3-6m)

Geographe Bay 52-59, (recorded by Wells as paratype of *C. marshae*) 317-78, 570-79, 276-73, 190-78, 448-79, 284-73, 112-77 (9-20m)

Starvation Boat Harbour 277-73

King George Sound 367-80, 3-87 (10-12m)

Esperance 417-86 (10m)

Recherche Archipelago 132-85, 127-85 (12-27m)

***Coscinaraea marshae*** Wells, 1962

Wells (1962): 240, pls 17, 18

Veron (1986b): 283, figs. 1-3

Restricted to south-western and South Australia (Shepherd and Veron 1982), this species has a distribution range unlike any other except *Symphyllia wilsoni*. This range overlaps with that of *C. mcneilli* which has a similar general appearance.

Previous records from Western Australia: Rottneest I. (holotype WAM 104-58); Geographe Bay, Wells (1962).

Records: Wallabi Group (Houtman Abrolhos Is.) 287-78, 63-88 (12m)

Houtman Abrolhos Is. 224-85, 382-84

Rottneest I. 104-58 (holotype, 3m), 103-58 (paratype), 101-58 (paratype), 166-83, 77-85, 76-85, 72-85, 189-78, 448-86, 451-86 (1-10m)

Geographe Bay 59-59 (paratype), 285-73, 447-79, 111-77, 309-78 (8-20m)

King George Sound 4-87 (10-12m)

Bedford Harbour 450-86 (15m)

Recherche Archipelago 368-77

**FAMILY AGARICIIDAE Gray, 1847**

**GENUS PAVONA** Lamarck, 1801

There is very little difference, in structure, colour or abundance, between the *Pavona* of the east and west coasts.

***Pavona cactus*** (Forskål, 1775)

Veron and Pichon (1980): 8-13, figs. 5-15, 730.

Restricted to NW Shelf reefs where it is very common, colonies having the same range of variation that occurs on the Great Barrier Reef.

Records: Ashmore Reef 574-86

Seringapatam Reef 315-79 (lagoon, 20m)

Scott Reef 160-85, 165-85 (lagoon; reef slope)

Rowley Shoals V

***Pavona decussata*** (Dana, 1846)

Veron and Pichon (1980): 13-17, figs. 16-25, 731

Common throughout the distribution range except for the Houtman Abrolhos Is., where it is rare.

Records: Ashmore Reef 784-86, 787-86, 801-86, 654-86, 769-86, 786-86, 812-86 (reef flat lagoon, 1-4m)

Cockatoo I. 153-85

Scott Reef 157-85 (lagoon, 9-15m)

Rowley Shoals 265-83 (lagoon, 1-8m)

Dampier Archipelago 246-73, 135-74, 152-85, 343-78, 527-80, 79-74, 248-73, 78-74, 12-72 (intertidal; 0-12m)

Montebello Is. 153-81

Northern Ningaloo Reefs 216-77, 215-77, 88-81, 566-81, 567-81 (reef flat; lagoon, 2-9m)

Point Quobba 319-79 (0-1m)

Wallabi Group (Houtman Abrolhos Is.) 278-78, 277-78, 286-78, 252-78, 396-77 (2-30m)

Houtman Abrolhos Is. 154-85, 164-85

***Pavona explanulata*** (Lamarck, 1816)

Veron and Pichon (1980): 17-21, figs. 26-34, 732, 733.

Uncommon over most of the distribution range.

Records: Ashmore Reef V

Scott Reef V

Rowley Shoals 291-83, 221-83 (lagoon 1-8m and outer slope, 16-35m)

Dampier Archipelago 368-84, 370-84

Northern Ningaloo Reefs 75-81, 214-77, 418-81 (reef flat, lagoon, wall of passage, 12-15m)

Middle Ningaloo Reefs 945-85 (lagoon, 5-12m)

Bernier I. 111-81 (2-4m)

Wallabi Group (Houtman Abrolhos Is.) 280-78, 281-78, 283-78, 145-88 (lagoon, 2-3m)

Houtman Abrolhos Is. 385-84, 387-84, 161-85

***Pavona clavus*** (Dana, 1846)

Veron and Pichon (1980): 21-25, figs. 35-40, 734.

Common on NW Shelf reefs, not observed elsewhere. Submassive colonies at Ashmore Reef may be a different species not recorded elsewhere on the west coast.



Records: Ashmore Reef 574-86, 756-86, 858-86 (reef flat, 1-4m)  
Cartier Reef 720-86 (outer slope, 8-22m)  
Scott Reef V  
Rowley Shoals V

***Pavona minuta*** Wells, 1954

Veron and Pichon (1980): 25-26, figs. 41-46, 733.

Uncommon although conspicuous over most of the distribution range, rare at the Houtman Abrolhos Is.

Records: Ashmore Reef V  
Scott Reef V  
Rowley Shoals 396-83, 400-83 (lagoon, 9-18m)  
Dampier Archipelago 360-84, 106-73, 107-73, 224-74, 133-74, 134-74, 262-73, 357-84, 159-85 (reef edge; reef front)  
Northern Ningaloo Reefs 217-77, 87-81, 560-81 (reef flat; outer slope, 8-15m)  
Southern Ningaloo Reefs 452-78, 453-78 (back reef)  
Bernier I. 132-81  
Dorre I. 750-81 (0-4m)  
Dirk Hartog I. 504-79 (2m)  
Wallabi Group (Houtman Abrolhos Is.) 394-77, 253-78, 254-78, 395-77 (reef flat; reef edge, 2m)  
Easter Group (Houtman Abrolhos Is.) 900-81, 155-88 (lagoon 1-2m)  
Pelsaert Group (Houtman Abrolhos Is.) 292-88 (9m)  
Houtman Abrolhos Is. 391-84

***Pavona varians*** Verrill, 1864

Veron and Pichon (1980): 26-30, figs. 47-54, 735.

Common although cryptic throughout the distribution range. Colonies may exceed 2m diameter at the Houtman Abrolhos Is.

Records: Ashmore Reef 680-86, 748-86, 712-86, 885-86, 903-86, 923-86 (outer slope, 6-20m; lagoons 0-6m)  
Scott Reef V  
Rowley Shoals V  
Dampier Archipelago 367-84, 709-84, 122-73, 158-85, 163-85 (reef front)  
Northern Ningaloo Reefs 752-81, 753-81, 202-81, 191-81, 572-81 (back reef; lagoon, 2-3m and outer slope, 6-15m)  
Middle Ningaloo Reefs 951-85, 886-85, 949-85 (lagoon, 5-15m)  
Wallabi Group (Houtman Abrolhos Is.) 284-78, 285-78 (15-24m)  
Easter Group (Houtman Abrolhos Is.) 899-81, 138-88 (1m)

***Pavona venosa*** (Ehrenberg, 1834)

Veron and Pichon (1980): 30-33, figs. 55-58, 736.

Uncommon throughout the distribution range.

Records: Ashmore Reef 793-86, 853-86 (lagoon, 3-5m)  
Scott Reef V  
Rowley Shoals 340-83 (outer slope, 15-30m)  
Northern Ningaloo Reefs 415-81 (lagoon)

***Pavona maldivensis*** (Gardiner, 1905)

Veron and Pichon (1980): 33-36, figs. 59-64, 737.

Rare at the Houtman Abrolhos Is., uncommon elsewhere.

Records: Ashmore Reef 604-86 (outer slope, 10-20m)  
Scott Reef V  
Rowley Shoals V  
Middle Ningaloo Reefs 869-85 (lagoon, 5-12m)  
Wallabi Group (Houtman Abrolhos Is.) 282-78 (lagoon, 7-12m)

***Pavona* sp. 1**

Previously recorded only from Papua New Guinea (Veron and Kelley *in prep.*); common at Ashmore Reef but not recorded elsewhere from Australia.

Record: Ashmore Reef 733-86, 800-86, 811-86, 828-86, 858-86 (lagoon, 0-6m, outer slope, 10-20m)

**GENUS LEPTOSERIS Edwards & Haime, 1849**

Like *Pavona*, there are few differences between east and west coast *Leptoseris* except that *L. papyracea* occurs in shallow lagoonal water at Scott Reef, whereas on the GBR it is restricted to lower reef slopes and inter-reefal areas.

***Leptoseris papyracea* (Dana, 1846)**

Veron and Pichon (1980): 38-40, figs. 65, 66

Record: Scott Reef 150-85 (lagoon)

***Leptoseris explanata* Yabe & Sugiyama, 1941**

Veron and Pichon (1980): 42-44, figs. 71-82, 738

Uncommon although very distinctive over most of the distribution range.

Records: Ashmore Reef 588-86 (outer slope, 10-20m)  
Seringapatam Reef 317-79 (lagoon, 20m)  
Scott Reef V  
Rowley Shoals 366-83 (outer slope, 16-35m)  
Northern Ningaloo Reefs 219-81, 31-81, 199-81 (wall of passage, 12-15m)  
Middle Ningaloo Reefs 909-85, 933-85, 942-85, 946-85 (lagoon, 5-15m and outer slope, 8-20m)  
Wallabi Group (Houtman Abrolhos Is.) 388-77, 274-78, 390-77 (paratype of *L. glabra*)  
Houtman Abrolhos Is. 149-85, 378-84, 388-84

***Leptoseris scabra* Vaughan, 1907**

Veron and Pichon (1980): 48-52, figs. 83-91, 739.

Uncommon over most of the distribution range but is often the most abundant *Leptoseris* in turbid water or under overhangs.

Previous records from Western Australia: Houtman Abrolhos, Dineson (1980)

Records: Ashmore Reef 618-86, 693-86 (outer slope 10-20m)  
Scott Reef 142-85, 144-85 (lagoon; outer slope)  
Rowley Shoals 143-85, 166-85  
Middle Ningaloo Reefs V  
Wallabi Group (Houtman Abrolhos Is.) 148-78 (lagoon, 7-12m)

***Leptoseris hawaiiensis* Vaughan, 1907**

Veron and Pichon (1980): 52-57, figs. 92-98, 740

Uncommon over most of the distribution range.

Previous records from Western Australia: Seringapatam Atoll, Dineson (1980).

Records: Ashmore Reef 589-86, 624-86, 682-86, 750-86, 816-86 (outer slope, 10-20m)  
Seringapatam Reef 314-79, 316-79 (outer slope, 40m)  
Scott Reef 145-85, 146-85, 147-85, 151-85 (outer slope, 15-35m)  
Rowley Shoals 438-83, 297-83, 371-83, 389-83 (lagoon, 9-18m and outer slope, 10-35m)  
Northern Ningaloo Reefs 37-81, 69-81 (wall of passage, 5-12m)  
Middle Ningaloo Reefs 824-85 (lagoon, 5-12m)  
Houtman Abrolhos Is. 148-85, 223-85

***Leptoseris mycetoseroides*** Wells, 1954

Veron and Pichon (1980): 57-60 figs. 99-103, 741.

Relatively common throughout the distribution range but is often cryptic, especially under overhangs where colonies may resemble *P. varians*. Such colonies may exceed 2m diameter.

Previous records from Western Australia: Houtman Abrolhos (WAM 389-77, 498-77) Dineson (1980).

Records: Ashmore Reef 625-86, 629-86, 632-86, 648-86, 652-86, 653-86 (lagoons, outer slopes)  
Scott Reef 169-85, 241-85 (outer slope)  
Rowley Shoals 288-83 (outer slope, 16-35m)  
Northern Ningaloo Reefs 80-81, 81-81, 82-81, 74-81, 218-81, 83-81 (wall of passage, 12-15m)  
Middle Ningaloo Reefs 872-85, 805-85 (lagoon, 5-12m)  
South Passage, Shark Bay 47-81, 405-81, 404-81, 401-81, 402-81, 403-81, 398-81 (9-18m)  
Wallabi Group (Houtman Abrolhos Is.) 288-78, 273-78, 389-77, 498-77, (15-31m)  
Easter Group (Houtman Abrolhos Is.) 61-88  
Houtman Abrolhos Is. 381-84, 383-84, 156-85, 225-85

***Leptoseris yabei*** (Pillai & Scheer, 1976)

Veron and Pichon (1980): 61-65, figs. 104-114, 743, 744.

Rare at the Houtman Abrolhos Is., sometimes common on upper reef slopes elsewhere.

Records: Ashmore Reef 783-86 (outer slope, 10-20m)  
Scott Reef 140-85 (reef slope)  
Rowley Shoals 420-83 (lagoon, 9-18m)  
Northern Ningaloo Reefs 73-81 (wall of passage, 12-15m)  
Middle Ningaloo Reefs 892-85, 887-85 (lagoon, 5-12m)  
Houtman Abrolhos Is. 162-85

***Leptoseris foliosa*** Dinesen, 1980

Dinesen (1980): 199, pl. 14

Veron and Pichon, 1980: 65-68, figs. 112-120 (as *L. tenuis* van der Horst, 1921)

Rare, cryptic, restricted to lower slopes.

Records: Ashmore Reef 487-86 (outer slope, 10-20m)  
Scott Reef  
Ningaloo Reefs  
Wallabi Group (Houtman Abrolhos Is.) 85-88  
Easter Group (Houtman Abrolhos Is.) 128-88

***Leptoseris incrustans*** (Quelch, 1886)

Dineson (1980): 191, pl. 3, figs. 1-2.

Records: Ashmore Reef 656-86 (outer slope, 8-20m)  
Scott Reef 141-85, 20-87  
Seringapatam Reef 313-79

GENUS GARDINEROSERIS Scheer & Pillai, 1974

***Gardineroseris planulata*** (Dana, 1846)

Veron and Pichon (1980): 68-72, figs. 121-125, 745

Usually uncommon over the full distribution range.

Records: Ashmore Reef 541-86 (lagoon, 0-18m)

Scott Reef V

Rowley Shoals V

Dampier Archipelago 155-85, 359-84, 366-84

Middle Ningaloo Reefs 868-85, 893-85, 854-85 (lagoon, 5-12m)

GENUS COELOSERIS Vaughan, 1918

***Coeloseris mayeri*** Vaughan, 1918

Veron and Pichon (1980): 72-76, figs. 126-130, 746

Usually uncommon.

Records: Ashmore Reef 833-86, 912-86, 917-86, 932-86 (reef flats, outer slopes)

Scott Reef 563-85 (lagoon, 5-7m)

Rowley Shoals 432-83, 269-83 (reef flat; lagoon, 2-8m)

GENUS PACHYSERIS Edwards & Haime, 1849

There are no significant differences between east and west coast *Pachyseris*.

***Pachyseris rugosa*** (Lamarck, 1801)

Veron and Pichon (1980): 76-81, figs. 131-137, 747.

Common throughout the distribution range. Colonies may consist primarily of upright fronds or explanate plates (Veron 1986b, p. 312, fig. 1, at Scott Reef) as they do on the Great Barrier Reef.

Records: Ashmore Reef V

Scott Reef 167-85 (lagoon 5-7m)

Rowley Shoals V

Dampier Archipelago 341-78 (6-9m)

Northern Ningaloo Reefs 42-81, 449-81, 206-77 (outer slope, 3-6m)

***Pachyseris speciosa*** (Dana, 1846)

Veron and Pichon (1980): 81-84, figs. 138-143, 748.

Very common throughout the distribution range and may be a dominant of lower reef slopes or form extensive monospecific stands.

Records: Ashmore Reef V

Scott Reef V

Rowley Shoals 418-83 (lagoon, 9-18m)

Dampier Archipelago 153-74, 95-74 (reef front, 8-30m)

Northern Ningaloo Reefs 52-81, 155-81, 205-77, 204-77 (reef flat; wall of passage, 9-15m)

Wallabi Group (Houtman Abrolhos Is.) 391-77, 392-77, 431-77, 175-78, 176-78, (8-31m)

Easter Group (Houtman Abrolhos Is.) V

## FAMILY FUNGIIDAE Dana, 1846

### GENUS CYCLOSERIS Edwards & Haime, 1849

Because most species of *Cycloseris* are seldom encountered, it is likely that the present records are incomplete.

#### *Cycloseris cyclolites* (Lamarck, 1801)

Veron and Pichon (1980): 108-110, figs. 171-174, 753

Seldom seen except on horizontal soft substrates between reefs or in deep lagoons, but may be very abundant in such areas.

Previous records from Western Australia: Broome; 42-45 miles WSW of Cape Jaubert, 66-70ft (20-21m) (as *Fungia cyclolites*) Folkeson (1919).

Records: Ashmore Reef 507-86 (outer slope, 12-20m)  
Cartier Reef 571-86 (20m)  
Admiralty Gulf 17-78, 462-86 (beach drift)  
Cape Voltaire 16-78  
Vansittart Bay 463-86 (beach drift)  
Lacepede Is. 458-83  
off Lagrange Bay 464-86 (22-45m)  
Dampier Archipelago 201-85, 985-79, 47-72, 453-86, 454-86, 460-86 (0-5m)  
Passage Is. 46-81 (12m)  
Dorre I. 757-81 (12m)  
Shark Bay 2-78, 688-81, 110-84, 455-86, 456-86, 457-86, 458-86, 459-86, 461-86 (12-25m)  
South Passage, Shark Bay 488-79 (4-5m)

#### *Cycloseris costulata* (Ortmann, 1889)

Veron and Pichon (1980): 110-112, figs. 175-177

Seldom seen except in some deep lagoons where it may be abundant.

Records: Ashmore Reef 762-86 (18-20m)  
Scott Reef 178-85  
Rowley Shoals 387-83, 262-83, 485-84, 403-83, 222-85 (lagoon, 6-18m)

#### *Cycloseris patelliformis* (Boschma, 1923)

Veron and Pichon (1980): 115-116, figs. 184-187.

Rare (Veron 1986b, p. 325, fig. 1, at Dampier Archipelago), occurs in deep water only.

Records: Dampier Archipelago V  
Wallabi Group (Houtman Abrolhos Is.) 219-78, 508-81, 218-85 (35m)

#### *Cycloseris vaughani* (Boschma, 1923)

Veron and Pichon (1980): 116-118, figs. 188-191

Rare, occurs in deep water only.

Records: Ashmore Reef 775-86 (outer slope, 6-14m)  
Cartier Reef 536-86 (20m)  
Scott Reef 221-85 (lagoon)  
Rowley Shoals 220-85 (lagoon, 6m)

#### *Cycloseris noumeae* Hoeksema and Best, 1984

Described as *Cantharellus noumeae* by Hoeksema & Best from New Caledonia and also found along the northern Australian and southern Papua New Guinean coasts, where it may be common in restricted areas between reefs or in sandy lagoons.

Records: Rowley Shoals 172-85 (lagoon, 9-18m)

***Cycloseris sinensis*** Edwards and Haime, 1851

This species is the most common *Cycloseris* in the Motupore I. region of southern Papua New Guinea but has not been previously recorded from Australia.

Records: Ashmore Reef 752-86, 757-86, 929-86 (outer slope, 10-20m)

***Cycloseris marginata*** (Boschma, 1923)

Veron and Pichon (1980): 118-119, figs. 192, 193.

This species is rare throughout its range and has only been recorded from Ashmore Reef on the west coast.

Record: Ashmore Reef 764-86 (outer slope, 6-14m)

GENUS DIASERIS Edwards & Haime, 1849

As with *Cycloseris*, the rarity of *Diaseris* makes it likely that present records are incomplete.

***Diaseris distorta*** (Michelin, 1843)

Veron and Pichon (1980): 121-123, figs. 194-196.

Rare, occurs only on soft substrates in deep water.

Records: Wallabi Group (Houtman Abrolhos Is.) 161-78, 217-78 (33-35m)  
Houtman Abrolhos Is. 174-85, 199-85

***Diaseris fragilis*** Alcock, 1893

Veron and Pichon (1980): 123-125, figs. 197-201.

Rare, occurs only on soft substrates in deep water or in turbid lagoons, but may be abundant in such areas.

Records: Shark Bay 465-86 (11m)  
Wallabi Group (Houtman Abrolhos Is.) 218-78 (33m)  
Easter Group (Houtman Abrolhos Is.) 81-88

GENUS HELIOFUNGIA Wells, 1966

***Heliofungia actiniformis*** (Quoy & Gaimard, 1833)

Veron and Pichon (1980): 125-128, figs. 202-205, 754

Very abundant on NW Shelf reefs, especially in lagoons.

Records: Ashmore Reef 364-79, 779-86 (lagoon, 15m)  
Scott Reef 185-85 (lagoon, 5-8m)  
Admiralty Gulf 21-78

GENUS FUNGIA Lamarck, 1801

Of all major genera, *Fungia* is the most restricted to tropical waters. In eastern Australia, only *F. scutaria* is abundant in higher latitudes (Elizabeth and Middleton Reefs). On the west coast, only a single specimen, of *F. repanda*, has been recorded from the Houtman Abrolhos Islands. There are usually few, if any, differences between coralla from the two regions.



***Fungia fungites*** (Linnaeus, 1758)

Veron and Pichon (1980): 129-132, figs. 206-213, 755, 757.

Common throughout range.

Records: Ashmore Reef 915-86, 930-86

Troughton I. 216-85

Cassini I. 19-78

Cape Voltaire 20-78

Cockatoo I. 215-85

Seringapatam Reef 371-79 (lagoon, 20m)

Scott Reef 186-85, 187-85, 207-85, 194-85, 219-85 (reef slope)

Rowley Shoals 352-83, 236-83, 263-83, 361-83, 22-84 (reef flat; lagoon, 1-8m and outer slope, 15-30m)

Dampier Archipelago 306-84, 405-78, 404-78, 403-78 (lagoon, 3-4m)

Montebello Is. 39-59, 40-59, 388-80 (lagoon, 2-4m)

Northern Ningaloo Reefs 202-77, 222-77, 524-81, 523-81, 533-81 (reef flat; back reef; lagoon 6-9m)

Middle Ningaloo Reefs 226-77 (reef flat)

***Fungia scruposa*** Klunzinger, 1879

Veron and Pichon (1980): 137-139, figs. 222-225.

Rare.

Records: Ashmore Reef 928-86, 939-86, 3-88 (lagoon)

Scott Reef V

Dampier Archipelago 193-85

***Fungia horrida*** Dana, 1846

Veron and Pichon (1980): 139-143, figs. 226-231.

Usually uncommon but may be abundant in restricted areas.

Records: Ashmore Reef 810-86, 906-86 (lagoon 8-22m)

Scott Reef 203-85 (outer slope)

Rowley Shoals 423-83, 391-83 (lagoon 9-18m)

***Fungia valida*** Verrill, 1864

Veron and Pichon (1980): 143-144, figs. 232, 233

This species is common at Ashmore Reef but has not been recorded elsewhere on the west coast.

Record: Ashmore Reef 522-86, 886-86, 4-88 (lagoon, 0-20m)

***Fungia klunzingeri*** Doderlein, 1901

Veron and Pichon (1980): 144-145, figs. 234-238.

Usually uncommon.

Records: Ashmore Reef V

Rowley Shoals 227-83, 229-83 (lagoon 1-8m)

***Fungia repanda*** Dana, 1846

Veron and Pichon (1980): 146-150, figs. 239-244.

Common throughout the distribution range except for the Houtman Abrolhos Is. where only a single specimen has been observed. This is the only record of *Fungia* at the Houtman Abrolhos Is.

Records: Ashmore Reef 673-86, 773-86, 586-86, 882-86, 791-86, 802-86, 826-86 (outer slopes, reef flats, lagoons)  
Admiralty Gulf 143-77 (intertidal)  
Koolan I. 214-85 (intertidal)  
King Sound 212-85  
Scott Reef 204-85, 210-85 (reef slope, lagoon, 5-8m)  
Rowley Shoals 407-83, 424-83, 390-83 (lagoon, 9-18m)  
Dampier Archipelago 205-85, 209-85  
Middle Ningaloo Reefs 895-85 (lagoon, 5-12m)  
Wallabi Group (Houtman Abrolhos Is.) 30-88 (21m)

***Fungia concinna*** Verrill, 1864

Veron and Pichon (1980): 150-153, figs. 245-250.

Common throughout the distribution range.

Records: Ashmore Reef 697-86, 772-86 (lagoon 0-8m)  
Kimberley coast  
Scott Reef 211-85 (lagoon 5-7m)  
Dampier Archipelago 304-84, 192-85  
Middle Ningaloo Reefs 954-85, 855-85, 944-85 (lagoon 5-12m)  
Southern Ningaloo Reefs 389-78 (back reef)

***Fungia granulosa*** Klunzinger, 1879

Veron and Pichon (1980): 156-159, figs. 257-263.

Common in restricted areas within the distribution range.

Records: Ashmore Reef 881-86 (reef flat, 1-4m)  
Scott Reef 176-85, 177-85, 179-85, 180-85, 181-85, 189-85 (lagoon, 6-15m)  
Rowley Shoals 175-85, 206-85 (outer slope, 10-30m)

***Fungia scutaria*** Lamarck, 1801

Veron and Pichon (1980): 159-162, figs. 264-268.

Common throughout the distribution range.

Records: Ashmore Reef 631-86 (outer slope, 8-20m)  
Scott Reef 173-85, 188-85 (reef slope; lagoon 5-8m)  
Rowley Shoals 430-83 (reef flat)  
Northern Ningaloo Reefs 223-77, 224-77, 225-77, 531-81, 541-81, 30-81, 550-81 (reef flat; lagoon, 1-5m and outer slope, 8-11m)  
Middle Ningaloo Reefs 77-72  
Southern Ningaloo Reefs 552-78, 386-78 (lagoon, 2m)

***Fungia paumotensis*** Stutchbury, 1833

Veron and Pichon (1980): 162-165, figs. 269-272

Sometimes common.

Records: Ashmore Reef 696-86 (outer slope, 10-30m)  
Scott Reef 190-85, 208-85 (outer slope)  
Rowley Shoals 191-85 (lagoon, 9-18m)  
Ashburton Reef 213-85 (intertidal)

***Fungia echinata*** (Pallas, 1766)

Veron and Pichon (1980): 169-172, figs. 283-289.

Common throughout the distribution range.

Records: Ashmore Reef V  
Scott Reef 242-85, 202-85 (lagoon 5-8m, reef slope)  
Cape Voltaire 164-77  
Northern Ningaloo Reefs 529-81 (lagoon, 6-9m)

***Fungia simplex*** (Gardiner, 1905)

*Herpetoglossa simplex*, Veron and Pichon (1980): 173-176, figs. 290-293.

Usually uncommon.

Previous records from Western Australia: Broome (as *Herpolitha simplex*) Folkeson (1919).

Records: Ashmore Reef V  
Scott Reef V  
Rowley Shoals 868-81  
Dampier Archipelago (EPA)  
Ningaloo Reefs

GENUS HERPOLITHA Eschscholtz, 1825

***Herpolitha limax*** (Houttuyn, 1772)

Veron and Pichon (1980): 178-180, figs. 294-299

Common throughout the distribution range.

Records: Ashmore Reef 715-86, 738-86 (lagoon, 0-8m)  
Scott Reef 196-85 (reef slope)  
Admiralty Gulf 159-77 (intertidal)  
Cape Voltaire 165-77  
Rowley Shoals V  
Dampier Archipelago 496-80, 390-78, 171-85, 382-79, 105-74, 104-74, 271-73 (intertidal; 0-10m)  
Northern Ningaloo Reefs 525-81, 527-81, 521-81, 208-77, 207-77 (lagoon, 3-9m)  
Middle Ningaloo Reefs 896-85 (lagoon, 12-15m)

***Herpolitha weberi*** (van der Horst, 1921)

Veron and Pichon (1980): 180-182, figs. 300-304

Probably rare. Can be readily confused with immature *H. limax* from which it is much less readily distinguished than in other regions where these species occur together.

Records: Ashmore Reef 709-86 (reef flat)  
Cape Voltaire 170-85  
Rowley Shoals 428-83 (lagoon, 9-18m)

GENUS POLYPHYLLIA Quoy & Gaimard, 1833

***Polyphyllia talpina*** (Lamarck, 1801)

Veron and Pichon (1980): 183-186, figs. 305-310

Previous record from Western Australia: 45 miles WSW of Cape Jaubert (as *P. producta*) Folkeson (1919).

Common throughout the distribution range.

Records: Ashmore Reef 799-86 (10-12m)  
Admiralty Gulf 160-177 (intertidal)  
Cockatoo I. 624-79

Yampi Sound 466-86  
Serangapatam Reef 365-79 (lagoon, 20m)  
Scott Reef V  
Rowley Shoals 184-85, 197-85, 198-85, 255-83 (lagoon, 2-8m and outer slope, 1-5m)  
Dampier Archipelago 103-74, 272-73, 383-78, 381-79, 382-78, 384-78 (4-5m)  
Middle Ningaloo Reefs V

GENUS SANDALOLITHA Quelch, 1884

*Sandalolitha robusta* (Quelch, 1886)

Veron and Pichon (1980): 190-193, figs. 315-320.

Common throughout the distribution range.

Records: Ashmore Reef V  
Scott Reef 182-85 (lagoon 5-8m)  
Rowley Shoals V  
Northern Ningaloo Reefs 528-81 (lagoon 6-9m)  
Middle Ningaloo Reefs V

GENUS LITHOPHYLLON Rehberg, 1892

*Lithophyllon edwardsi* (Rousseau, 1854)

Veron and Pichon (1980): 195-196, figs. 321-323, 758.

Uncommon but sometimes very conspicuous. Although colonies of this species on the Great Barrier Reef are less than 80mm diameter, they may be several m in diameter in other geographic regions, including western Australia (Veron 1986b, p. 358, 359, figs. 1, 2 at Dampier Archipelago). Skeletal structures show no geographic variation. Polyps may be extended during the day.

Records: Ashmore Reef V  
Serangapatam Reef 317-79  
Scott Reef 183-85 (lagoon 5-8m)  
Dampier Archipelago 307-84, 308-84, 494-78, 99-74, 154-74, 565-78, 562-78, 158-74, 566-78, 563-78 (reef front)  
Passage Is. 486-81, 485-81, 487-81 (2-5m)  
Middle Ningaloo Reefs 912-85, 831-85, 568-78 (lagoon, 5-12m and outer slope, 8-20m)

GENUS PODABACIA Edwards & Haime, 1849

*Podabacia crustacea* (Pallas, 1766)

Veron and Pichon (1980): 197-200, figs. 324-327.

Common throughout the distribution range.

Records: Ashmore Reef 637-86  
Admiralty Gulf 139-77 (intertidal)  
Scott Reef V  
Rowley Shoals 435-83, 279-83 (outer slope, 10-35m)  
Dampier Archipelago 564-78, 565-78, 566-78, 377-78, 305-84, 379-78, 247-73, 157-74, 378-78, 305-84, 200-85 (lagoon, 3-4m and reef slope, 3-7m)  
Northern Ningaloo Reefs 41-81, 457-81 (lagoon 2-3m, and outer slope, 8-11m)

**FAMILY OCULINIDAE Gray, 1847**

GENUS GALAXEA Oken, 1815

***Galaxea astreata*** (Lamarck, 1816)

Veron and Pichon (1980): 201-204, figs. 328-336, 759, 760.

Very common throughout the distribution range and may form colonies several m in diameter. Columnar growth forms are more common on the west coast than on the Great Barrier Reef.

Records: Ashmore Reef V

Admiralty Gulf 140-77 (intertidal)

King Sound 513-85 (beach drift)

Scott Reef V

Rowley Shoals V

Dampier Archipelago V

Montebello Is. 389-80 (lagoon, 2-3m)

Northern Ningaloo Reefs 254-77, 464-81, 448-81, 68-81, 253-77 (reef flat; lagoon, 6-9m and outer slope, 2-6m)

Middle Ningaloo Reefs 556-78 (reef flat)

***Galaxea fascicularis*** (Linnaeus, 1767)

Veron and Pichon (1980): 204-210, figs. 336-347, 761, 762.

Very common throughout the distribution range and frequently forms colonies several m in diameter in deep or turbid water.

Records: Ashmore Reef V

Admiralty Gulf 514-85 (beach drift)

Cockatoo I. 515-85

Scott Reef V

Rowley Shoals 419-83 (lagoon, 9-18m)

Dampier Archipelago 356-78, 108-73, 109-73, 110-73, 111-73, 159-74, 387-78, 388-78, 53-72 (reef front, 1-6m)

Montebello Is. 376-80, 378-80 (3-4m)

Lowendal Is. 45-59 (beach drift)

Onslow 47-59 (beach drift)

Northern Ningaloo Reefs 447-81, 59-78, 44-81, 58-78, 60-78, 61-78, 62-78, 63-78 (reef flat; lagoon, 1-5m)

Middle Ningaloo Reefs 57-78 (reef flat)

Wallabi Group (Houtman Abrolhos Is.) 267-78 (lagoon, 18m)

GENUS ACRHELIA Edwards & Haime, 1849

On both east and west coasts, *Acrhelia* is the most intolerant of turbid water of all scleractinian genera. On the west coast it does not occur in any coastal locality.

***Acrhelia horrescens*** (Dana, 1846)

Veron and Pichon (1980): 212-215, figs. 348-357, 763.

Common on NW Shelf reef lagoons, unknown from coastal localities.

Records: Ashmore Reef 587-86 (reef flat, 1-4m)

Scott Reef 576-85 (lagoon, 9-18m)

Rowley Shoals 469-83, 412-83 (lagoon, 9-18m)

**FAMILY PECTINIIDAE Vaughan & Wells, 1943**

GENUS *ECHINOPHYLLIA* Klunzinger, 1879

Except for plate-like *E. orpheensis* at the Houtman Abrolhos Islands, there is little difference between the *Echinophyllia* of the Great Barrier Reef and west coast.

***Echinophyllia aspera*** (Ellis & Solander, 1786)

Veron and Pichon (1980): 298-301, figs. 515-521, 800-802.

Common throughout the full distribution range.

Records: Ashmore Reef V

Seringapatam Reef 369-79 (outer slope, 40m)

Scott Reef 561-85 (lagoon, 9-18m)

Dampier Archipelago

Montebello Is.

Northern Ningaloo Reefs 337-77, 340-77, 338-77, 339-77, 24-81, 85-81, 475-81, 341-77 (reef flat, lagoon, 3-9m)

Middle Ningaloo Reefs 581-78 (1m)

Dome I. 800-81 (0-5m)

Dirk Hartog I. 502-79 (6m)

North I. (Houtman Abrolhos Is.) 349-77

Wallabi Group (Houtman Abrolhos Is.) 398-77, 491-85, 408-77, 201-74, 488-85, 143-78, 141-78, 149-78, 150-78, 150-88 (3-30m)

Easter Group (Houtman Abrolhos Is.) 51-73, 894-81, 402-77, 404-77, 56-73, 16-73, 43-88, 72-88 (reef flat; lagoon, 1-3m)

Pelsaert Group (Houtman Abrolhos Is.) 324-77, 343-77 (back reef; channel, 1-5m)

Houtman Abrolhos Is. 560-85, 263-84, 259-84, 261-84

***Echinophyllia orpheensis*** Veron & Pichon, 1980

Veron and Pichon (1980): 302-307, figs. 522-534, 803, 804.

Usually uncommon. Forms explanate plates at the Houtman Abrolhos Is. with outwardly inclined corallites.

Records: Ashmore Reef 613-86 (lagoon, 0-6m)

Scott Reef 572-85, 565-85 (lagoon 5-8m)

Rowley Shoals V

Passage I. 615-81 (2-5m)

Northern Ningaloo Reefs V

Southern Ningaloo Reefs V

Bernier I. 806-81 (2-4m)

Wallabi Group (Houtman Abrolhos Is.) 289-78

Easter Group (Houtman Abrolhos Is.) V

***Echinophyllia echinata*** (Saville-Kent, 1871)

Veron and Pichon (1980): 307-310, figs. 535-538.

Recorded on the west coast only from Ashmore Reef, where it is unusually common.

Records: Ashmore Reef 525-86

GENUS *OXYPORA* Saville-Kent, 1871

***Oxypora lacera*** (Verrill, 1864)

Veron and Pichon (1980): 314-318, figs. 546-558, 807-810

Common throughout the full distribution range.



Records: Ashmore Reef 503-86, 516-86, 610-86, 636-87, 688-86, 687-86 (outer slopes, lagoons, 0-14m)  
 Scott Reef V  
 Rowley Shoals 301-83, 341-83 (outer slope, 15-35m)  
 Dampier Archipelago 100-74, 576-78, 577-78, 578-78, 579-78 (2-4m)  
 Montebello Is. 491-81, 492-81, 496-81 (lagoon 2-4m)  
 Bundegi Reef, Exmouth Gulf 435-81 (2-4m)  
 Northern Ningaloo Reefs 331-77, 467-81, 470-81 (lagoon, 2-9m)  
 Middle Ningaloo Reefs 330-77 (reef flat)  
 South Passage, Shark Bay 503-79 (15m)  
 Wallabi Group (Houtman Abrolhos Is.) 409-77, 490-85, 399-77, 177-78, 142-78, 467-86, 406-77, 144-78, 145-78, 146-78, 147-78 (2-30m)  
 Easter Group (Houtman Abrolhos Is.) 405-77, 397-77, 84-88 (9-12m)  
 Pelsaert Group (Houtman Abrolhos Is.) 329-77 (6-10m)  
 Houtman Abrolhos Is. 564-85, 260-84

***Oxypora glabra*** Nemenzo, 1959

Veron and Pichon (1980): 318-319, figs. 559-563

Much more abundant on the west coast than on the east. Colonies tend to form thin plates similar to those of *O. lacera* (Veron 1986b, p. 381, figs. 1, 2 at Rowley Shoals and Houtman Abrolhos Is. respectively) and distinctions between these species are not as clear as they are in other geographic regions including the Great Barrier Reef and the Philippines.

Records: Ashmore Reef V  
 Scott Reef V  
 Rowley Shoals 264-84, 265-85, 453-83, 401-83, 553-85 (lagoon, 9-18m)  
 Northern Ningaloo Reefs 474-81 (lagoon, 6-9m)  
 Wallabi Group (Houtman Abrolhos Is.) 223-78 (lagoon, 18m)  
 Easter Group (Houtman Abrolhos Is.) 400-77 (2-3m)  
 Pelsaert Group (Houtman Abrolhos Is.) 342-77, 344-77 (4-5m)  
 Houtman Abrolhos Is. 262-84, 558-85

GENUS MYCEDIUM Oken, 1815

***Mycedium elephantotus*** (Pallas, 1766)

Veron and Pichon (1980): 320-325, figs. 564-582, 811-813.

Common throughout the full distribution range and very polymorphic in all localities.

Records: Ashmore Reef V  
 Scott Reef V  
 Rowley Shoals 444-83 (outer slope, 10-30m)  
 Dampier Archipelago 506-80, 507-80, 582-78, 505-80, 574-78, 575-78, 580-78 (2-4m)  
 Passage Is. 490-81 (2-5m)  
 Northern Ningaloo Reefs 473-81 (lagoon, 6-9m)  
 Wallabi Group (Houtman Abrolhos Is.) 430-77 (20m)  
 Easter Group (Houtman Abrolhos Is.) 403-77, 401-77 (2-3m)  
 Pelsaert Group (Houtman Abrolhos Is.) 319-77, 321-77 (4-5m)

***Mycedium robokaki*** Moll and Borel Best, 1984

Moll and Borel Best (1984): 56-58, figs. 10, 11.

Recorded on the west coast only from Ashmore Reef, where it is common.

Record: Ashmore Reef 475-86, 492-86, 509-86, 517-86, 736-86 (lagoon, 0-6m, outer slope, 6-20m)

GENUS PECTINIA Oken, 1815

***Pectinia lactuca*** (Pallas, 1766)

Veron and Pichon (1980): 330-331, figs. 583-585, 814-816.

The most common *Pectinia* of coastal Western Australia. Colonies frequently exceed 1m diameter.

Records: Ashmore Reef V

Scott Reef V

Rowley Shoals V

Dampier Archipelago 525-78, 526-78 (reef flat)

Northern Ningaloo Reefs 326-77, 6-81 (reef flat; lagoon)

Middle Ningaloo Reefs 550-78, 327-77 (reef flat)

***Pectinia paeonia*** (Dana, 1846)

Veron and Pichon (1980): 331-333, figs. 586-595, 817, 818.

Common throughout most of the distribution range.

Records: Ashmore Reef V

Cockatoo I. 325-77

Scott Reef V

Dampier Archipelago 527-78, 291-84, 289-84, 288-84, 524-78, 270-73 (reef slope, 2-9m)

Montebello Is. 44-59, 370-80 (1-8m)

Northern Ningaloo Reefs 564-81, 5-81 (lagoon 2-9m)

***Pectinia alcicornis*** (Saville-Kent, 1871)

Veron and Pichon (1980): 335-341, figs. 596-601, 819-821.

Uncommon, occurs only on NW Shelf reefs.

Records: Ashmore Reef 665-86, 826-86 (lagoon, outer slope)

Seringapatam Reef 363-79, 368-79 (lagoon, 20m)

***Pectinia teres*** Nemenzo, 1981

Uncommon, occurs only on NW Shelf reefs (Veron 1986b, p. 389, fig. 1, at the Rowley Shoals). There is little difference between these coralla and those from the Philippines.

Records: Ashmore Reef V

Scott Reef 575-85, 554-85 (lagoon, 6-7m)

Rowley Shoals 202-83, 218-83, 395-83, 557-85 (lagoon, 1-18m)

FAMILY MUSSIDAE Ortmann, 1890

GENUS BLASTOMUSSA Wells, 1961

Except for the rare occurrence of *B. merleti* at the Dampier Archipelago, the genus has only been found in Western Australia at the Houtman Abrolhos Islands.

***Blastomussa merleti*** (Wells, 1961)

Veron and Pichon (1980): 234-236, figs. 392-394, 767.

Uncommon, usually forming small green-centred colonies on lower reef slopes (Veron 1986b, p. 392, fig. 1, at the Houtman Abrolhos Is.)

Records: Dampier Archipelago 418-84

Easter Group (Houtman Abrolhos Is.) 454-77, 121-88 (12m)

Houtman Abrolhos Is. 416-84, 417-84, 254-85

***Blastomussa wellsi*** Wijsman-Best, 1973

Veron and Pichon (1980): 236-238, figs. 395, 768, 769.

In Western Australia known only from the Houtman Abrolhos Is. where it is usually uncommon and restricted to turbid environments. Colonies are green in colour and are plocoid rather than phaceloid.

Records: Wallabi Group (Houtman Abrolhos Is.) V

Easter Group (Houtman Abrolhos Is.) 135-88

Houtman Abrolhos Is. 252-85, 253-85, 255-85, 257-85, 419-85

GENUS SCOLYMIA Haime, 1852

***Scolymia australis*** (Edwards & Haime, 1849)

Veron and Pichon (1980): 250-252, figs. 425, 775.

Restricted to the southern coastline from east to west coasts, a distribution similar to that of *Coscinaraea mcneilli*. Usually uncommon throughout this range.

Previous records from Western Australia: South-western Australia (as *Homophyllia australis*) Wells (1962); Rottnest I., Garden I., Point Peron, Triggs Bay (Trigg I.) (as *Homophyllia australis*) Wells (1964).

Records: Rottnest I. 244-85

Fremantle 55-72 (7m)

Cockburn Sound 463-78, 467-78 (3-4m)

Garden I. 245-85

Cape Peron 119-58, 120-58 (2-7m)

Flinders Bay (Augusta) 357-79

Point d'Entrecasteaux 34-43

Denmark I. 1-78 (2m)

King George Sound 366-80, 2-87 (10-12m)

Cheyne Beach 246-85

Hopetoun 418-86 (7-9m)

Duke of Orleans Bay 247-85

GENUS AUSTRALOMUSSA Veron, 1985

This distinctive genus is unknown on the Great Barrier Reef.

***Australomussa rowleyensis*** Veron, 1985

Veron (1985): 171-175, figs. 23-25.

Rare throughout the distribution range except for restricted biotopes of N Legendre I. (Dampier Archipelago) (Veron 1986b, p. 405, 406, figs. 1, 3, 4, 5, at the Rowley Shoals and Dampier Archipelago). Colonies are small, flat, dark green and grey at Rowley Shoals and large, dome-shaped and medium grey at Dampier Archipelago.

Previous records from Western Australia: Dampier Archipelago (WAM 171-84, holotype); Rowley Shoals; Houtman Abrolhos, all Veron (1985)

Records: Ashmore Reef 818-86 (outer slope, 10-20m)

Scott Reef 251-85 (lagoon)

Rowley Shoals 172-84 (paratype) 512-84, 577-85, 468-86, 469-86, 470-86, 471-86 (lagoon 8-18m)

Dampier Archipelago 171-84 (holotype) 513-84, 514-84, 993-85, 976-85, 977-85, 978-85, 979-85, 980-85, 981-85 (17m)

GENUS ACANTHASTREA Edwards & haime, 1848

***Acanthastrea echinata*** (Dana, 1846)

Veron and Pichon (1980): 253-257, figs. 432-439, 776-778.

Common on most reef slopes throughout the distribution range. Usually grey or brown but may be colourful.

Records: Ashmore Reef 832-86 (outer slope, 6-14m)

Scott Reef V

Rowley Shoals 443-83, 284-83 (outer slope, 10-35m)

Dampier Archipelago 258-85, 303-84, 790-81 (2-6m)

Bundegi Reef, Exmouth Gulf 590-81 (2-4m)

Northern Ningaloo Reefs 229-77 (reef flat)

Dorre I. 864-81 (0-4m)

Wallabi Group (Houtman Abrolhos Is.) 166-78, 450-77 (1-30m)

Easter Group (Houtman Abrolhos Is.) 451-77, 455-77, 122-88 (1-3m)

***Acanthastrea hillae*** Wells, 1955

Veron and Pichon (1980): 257-260, figs. 440-448, 779-781.

Uncommon except at the Houtman Abrolhos Is. This species is also uncommon in tropical localities of eastern Australia, but whereas it has a wide range of colours in the east, there is little variation in the west, most colonies being creamy green or brown (Veron 1986b, p. 408, fig. 2) and these usually have relatively coarse skeletal structures with a tendency to become sub-meanroid.

Records: Middle Ningaloo Reefs 923-85 (outer slope, 8-20m)

Dorre I. 799-81 (0-5m)

Dirk Hartog I. 391-81 (2m)

Wallabi Group (Houtman Abrolhos Is.) 448-77, 226-78, 227-78, 228-78, 447-77, 58-88 (5-31m)

Easter Group (Houtman Abrolhos Is.) 446-77, 449-77 (1m)

Pelsaert Group (Houtman Abrolhos Is.) 252-77 (4-5m)

Houtman Abrolhos Is. 419-84, 421-84, 422-84, 423-84, 424-84, 425-84, 426-84, 427-84, 707-84, 250-85, 975-85

***Acanthastrea bowerbanki*** Edwards & Haime, 1851

Veron and Pichon (1980): 260-264, figs. 449-454, 781-784.

This species is rare on the Great Barrier Reef and is only known from a single western Australian locality.

Record: Ashmore Reef 865-86

***Acanthastrea lordhowensis*** Veron & Pichon, 1982

Veron and Pichon (1982): 138.

*Acanthastrea* sp. Veron and Pichon (1980): 264-266, figs. 455, 456.

Rare except in isolated biotopes.

Record: Dampier Archipelago 786-81, 517-78, 512-78 (2-3m)

GENUS LOBOPHYLLIA de Blainville, 1830

***Lobophyllia hemprichii*** (Ehrenberg, 1834)

Veron and Pichon (1980): 266-274, figs. 457-471, 785-791.

Previous records from Western Australia: King Sound; Troughton I. (as *L. costata*) Matthai (1928).

Common and very variable in colour and growth form throughout the full distribution range.

Records: Ashmore Reef 540-86, 717-86, 787-86 (lagoon, outer slopes)  
Cape Voltaire 505-84, 29-78  
Cockatoo I. 259-85  
Scott Reef V  
Rowley Shoals V  
Dampier Archipelago 46-72, 96-74, 505-78, 492-80, 146-74, 548-78 (outer slope, 2-8m)  
Montebello Is. 165-81, 154-81 (1-4m)  
Passage Is. 613-81, (2-5m)  
Northern Ningaloo Reefs 559-81, 258-77, 593-81, 478-81, 48-78, 49-78, 557-81, 216-81, 207-81, 256-77, 257-77, 259-77, 41-78, 555-81 (reef flat; back reef and lagoon, 2-5m)  
Middle Ningaloo Reefs 85-72, 849-85 (reef flat; lagoon, 5-12m)  
Wallabi Group (Houtman Abrolhos Is.) 376-79, 214-74, 197-74 (lagoon, 1-2m)  
Easter Group (Houtman Abrolhos Is.) 456-77  
Pelsaert Group (Houtman Abrolhos Is.) 260-85, 261-85, 262-85, 255-77, 196-77 (3-8m)  
Houtman Abrolhos Is. 445-84

***Lobophyllia corymbosa*** (Forskål, 1775)

Veron and Pichon (1980): 274-277, figs. 472-475, 791-793.

Uncommon. There is less difference between this species and *L. hemprichii* at all western localities than on the east coast. This is primarily because septal dentations are less easily contrasted. The present identifications are therefore provisional only.

Previous records from Western Australia: King Sound, Matthai (1928).

Records: Ashmore Reef V  
Kimberley Coast  
Dampier Archipelago 493-80  
Barrow I. & Lowendal Is.  
Middle Ningaloo Reefs 870-85 (lagoon, 5-12m)  
Houtman Abrolhos Is.

***Lobophyllia hataii*** Yabe, Sugiyama & Eguchi, 1936

Veron and Pichon (1980): 279-282, figs. 482-487, 795

Uncommon throughout most of the distribution range but more abundant than on the east coast.

Records: Ashmore Reef V  
Scott Reef V  
Rowley Shoals 334-83 (outer slope, 15-30m)  
Dampier Archipelago 256-85, 268-73  
Northern Ningaloo Reefs 578-81 (outer slope, 8-11m)  
Middle Ningaloo Reefs 804-85 (lagoon, 5-12m)  
Wallabi Group (Houtman Abrolhos Is.) 238-78, 239-78 (1-21m)  
Easter Group (Houtman Abrolhos Is.) 17-73 (0-1m)  
Houtman Abrolhos Is. 420-84

***Lobophyllia diminuta*** Veron, 1985

Veron (1985): 165-167, figs. 16, 17

A rare species in both eastern and western Australia.

Record: Middle Ningaloo Reefs 849-85

## GENUS SYMPHYLLIA Edwards & Haime, 1848

Except for *S. wilsoni*, there is little difference between the *Symphyllia* of the west coast and the Great Barrier Reef.

### *Symphyllia wilsoni* Veron, 1985

Veron (1985): 167-171, figs. 18-22

A distinctive species restricted to south-western Australia. Seldom found with other corals; rare at the Houtman Abrolhos Is., most commonly found on kelp- or *Sargassum*-dominated coastal exposed rock surfaces (Veron 1986b, p. 421, figs. 2-4). Only *Coscinaraca marshae* has a similar distribution range, although habitat preferences are different.

Previous records from Western Australia: Houtman Abrolhos (WAM 168-84, holotype); Port Denison; Port Gregory; Shark Bay and Geographe Bay, all Veron (1985).

Records: Dorre I. 853-81 (0-4m)

Shark Bay 400-81

Dirk Hartog I. 394-81, 396-81 (2-12m)

South Passage, Shark Bay 393-81 (9m)

Port Gregory 982-85, 598-84, 515-84 (1-2m)

Wallabi Group (Houtman Abrolhos Is.) 179-78 (30m)

Easter Group (Houtman Abrolhos Is.) 168-84 (holotype) (8m)

Pelsaert Group (Houtman Abrolhos Is.) 243-85, 521-84 (1-2m)

Houtman Abrolhos Is. 983-85, 516-84

Port Denison 169-84 (paratype) 9m, 170-84 (paratype) 12m, 248-85

Jurien Bay 75-85

Grey 181-88 (3-6m)

Perth 63-85 (2-3m)

Rottneest I. 92-85, 188-78, 173-74 (0-5m)

Cockburn Sound 294-85, 460-78 (3-4m)

Geographe Bay 51-59, 57-59, 54-59, 306-78, 124-77, 304-78, 305-78, 67-81 (6-20m)

Bremer Bay 409-86 (beach drift)

### *Symphyllia recta* (Dana, 1846)

Veron and Pichon (1980): 292-289, figs. 488-494, 796.

Usually common throughout most of the distribution range.

Previous records from Western Australia: King Sound, Matthai (1928).

Records: Ashmore Reef

Scott Reef V

Rowley Shoals 222-83, 241-83, 261-83 (lagoon, 1-8m)

Dampier Archipelago

### *Symphyllia radians* Edwards & Haime, 1849

Veron and Pichon (1980): 289-290, figs. 495-502, 797.

Common throughout the distribution range.

Records: Ashmore Reef V

Northern Ningaloo Reefs 46-78 (2m)

Middle Ningaloo Reefs 501-78

### *Symphyllia agaricia* Edwards & Haime, 1849

Veron and Pichon (1980): 290-293, figs. 503-510, 798.

Common throughout the distribution range.



Records: Ashmore Reef V

Scott Reef V

Rowley Shoals 384-83 (outer slope, 16-35m)

Dampier Archipelago 267-73, 147-74 (outer slope)

Northern Ningaloo Reefs 422-81 (lagoon, 6-7m)

Easter Group (Houtman Abrolhos Is.) 156-88, 157-88

*Symphyllia valenciennesii* Edwards & Haime, 1849

Veron and Pichon (1980): 293-296, figs. 511-514, 799.

Uncommon, but more common than on the Great Barrier Reef.

Records: Ashmore Reef V

Scott Reef V

Rowley Shoals 219-83 (lagoon, 1-8m)

Dampier Archipelago 266-73 (2-3m)

#### FAMILY MERULINIDAE Verrill, 1866

GENUS HYDNOPHORA Fischer de Waldheim, 1807

*Hydnophora rigida* (Dana, 1846)

Veron, Pichon and Wijsman-Best (1977): 124-129, figs. 238-244.

Common throughout the distribution range. Colonies from NW Shelf reefs, which form stands, have a wider range of growth forms than occurs on the Great Barrier Reef. A second branching *Hydnophora* species may be present.

Records: Ashmore Reef 573-86, 564-86, 572-86, 573-86, 643-86, 916-86 (outer slope, 10-20m)

Scott Reef V

Rowley Shoals V

Dampier Archipelago 396-78

Montebello Is. 620-81 (3-4m)

Northern Ningaloo Reefs 10-81, 334-77, 461-81, 335-77 (reef flat; back reef)

Middle Ningaloo Reefs 332-77, 333-77, 339-78 (reef flat; back reef, 2-3m)

*Hydnophora pilosa* Veron, 1985

Veron (1985): 176-179, figs. 26-28.

Common at the Houtman Abrolhos Is., uncommon elsewhere.

Previous records from Western Australia: Houtman Abrolhos (WAM 175-84, paratype); Dampier Archipelago (WAM 176-84, paratype); Shark Bay; Ningaloo Reefs, all Veron (1985).

Records: Ashmore Reef

Scott Reef V

Dampier Archipelago 176-84 (paratype, 12m) 160-74, 517-84, (outer slope, 2-8m)

Northern Ningaloo Reefs 336-77 (2m)

Wallabi Group (Houtman Abrolhos Is.) 175-84 (paratype) (28m)

*Hydnophora exesa* (Pallas, 1766)

Veron, Pichon and Wijsman-Best (1977): 129-134, figs. 247-254.

Common throughout the distribution range.

Previous records from Western Australia: Roebuck Bay, Matthai (1928).

Records: Ashmore Reef 739-86 (lagoon, 2-13m)  
 Scott Reef V  
 Rowley Shoals V  
 Dampier Archipelago 9-72, 250-73, 253-84, 397-78, 398-78, 399-78, 400-78, 401-78, 402-78, 161-74, 91-74, 518-85 (0-5m)  
 Passage Is. 618-81 (2-5m)  
 Northern Ningaloo Reefs 494-81, 60-81, 227-77 (1-6m)  
 Middle Ningaloo Reefs 558-78, 938-81 (back reef, 2-3m)  
 Shark Bay 490-79 (2-3m)  
 North I. (Houtman Abrolhos Is.) 504-85  
 Wallabi Group (Houtman Abrolhos Is.) 200-74, 205-74, 191-74, 505-85, 211-74, 415-77 (lagoon, 1-2m)  
 Easter Group (Houtman Abrolhos Is.) 416-77, 377-77, 378-77, 379-77  
 Pelsaert Group (Houtman Abrolhos Is.) 506-85, 507-85 (4-5m)  
 Houtman Abrolhos Is. 254-84, 257-84, 285-84

***Hydnophora microconos*** (Lamarck, 1816)

Veron, Pichon and Wijsman-Best (1977): 135-136, figs. 255, 256.

Common throughout the distribution range.

Records: Ashmore Reef 628-86 (reef flat)  
 Broome 485-83 (0-1m)  
 Dampier Archipelago 519-85, 88-74, 89-74, 160-74, 385-78 (outer slope, 2-8m)  
 Bundegi Reef, Exmouth Gulf 432-81 (2-4m)  
 Northern Ningaloo Reefs 507-81, 228-77, 193-81 (reef flat; back reef; lagoon)  
 Middle Ningaloo Reefs 381-78 (4-5m)

GENUS MERULINA Ehrenberg, 1834

***Merulina ampliata*** (Ellis & Solander, 1786)

Veron and Pichon (1980): 216-223, figs. 358-374, 764.

Common throughout the distribution range where there is a lot of geographic as well as environmentally-induced variation. Colonies at the Houtman Abrolhos Is. (Veron 1986b, p. 436, fig. 3) usually consist of foliaceous plates arranged in tiers and whorls with upgrowths reduced to irregular nodules. Similar growth forms are usually found at temperate localities of eastern Australia (*ibid.* fig. 1). Although it is possible that this is a distinct species, primarily of high latitude reefs, this growth form intergrades with tropical colonies which consist of mixtures of foliaceous plates and irregular anastomosing branches.

Records: Ashmore Reef 660-86, 907-86 (lagoon)  
 Cockatoo I. 512-85  
 Scott Reef 517-85 (lagoon 7m)  
 Rowley Shoals 266-84, 498-83, 270-83, 274-83, 516-85 (lagoon, 2-8m)  
 Dampier Archipelago 263-73, 430-78 (outer slope, 2-8m)  
 Montebello Is.  
 Barrow I. 511-85  
 Northern Ningaloo Reefs 52-78, 53-78, 54-78, 55-78 (reef flat; back reef)  
 Wallabi Group (Houtman Abrolhos Is.) 393-77, 510-85, 131-78, 185-74, 92-88 (2-31m)  
 Pelsaert Group (Houtman Abrolhos Is.) 509-85, 508-85 (4-6m)  
 Houtman Abrolhos Is. 256-84, 255-84

***Merulina scabricula*** Dana, 1846

Veron and Pichon (1980): 223, 227, fig. 385; Veron (1985): 181.

Common throughout the distribution range.

Records: Ashmore Reef 656-86 (lagoon)

Scott Reef V

Rowley Shoals 238-83, 452-83 (lagoon, 2-8m)

Dampier Archipelago 26-72, 12-76 (outer slope, 2-8m)

Northern Ningaloo Reefs 493-81 (1-2m)

Middle Ningaloo Reefs 56-78, 919-85 (reef flat; outer slope, 8-20m)

**GENUS SCAPOPHYLLIA** Edwards & Haime, 1848

Common in most tropical localities.

***Scapophyllia cylindrica*** (Edwards & Haime, 1848)

Veron and Pichon (1980): 229-232, figs. 387-391.

Records: Ashmore Reef

Scott Reef V

Rowley Shoals V

Dampier Archipelago V

Montebello Is. 621-81 (3-4m)

Northern Ningaloo Reefs 78-81, 450-81, 458-81 (lagoon; outer slope, 8-11m)

Middle Ningaloo Reefs 916-85 (outer slope, 8-20m)

Easter Group (Houtman Abrolhos Is.) 5-73 (2m)

**FAMILY FAVIIDAE** Gregory, 1900

**GENUS CAULASTREA** Dana, 1846

This genus is much more restricted on the west coast than on the east. The two west coast species do not have overlapping ranges and are uncommon except in certain environments.

***Caulastrea tumida*** Matthai, 1928

Veron, Pichon and Wijsman-Best (1977): 18-19, figs. 13-15

Restricted to tropical coastal localities where it is common. Colonies from turbid environments may have corallites with several centres, becoming flabello-meandroid (Veron 1986b, p. 447, fig. 1, at Dampier Archipelago).

Previous records from Western Australia: King Sound, coll. Saville-Kent (BMNH 28.6.2.1./94.6.16.39 Holotype) Matthai (1928).

Records: Careening Bay 241-87

Lacepede Is. 204-84, 420-85

Dampier Archipelago 422-85, 196-84, 366-78, 367-78, 368-78, 348-79, 495-80, 418-78, 494-80 533-80, 416-78, 419-78 (reef slope, 1-5m)

Montebello Is. 803-81 (2-3m)

***Caulastrea furcata*** Dana, 1846

Veron, Pichon and Wijsman-Best (1977): 16, figs. 6-20, 414

Restricted to NW Shelf reefs where colonies are indistinguishable from those from the Great Barrier Reef.

Records: Ashmore Reef 597-86, 615-86, 713-86, 940-86 (lagoons, outer slope)

Scott Reef 423-85 (lagoon slope)

GENUS FAVIA Oken, 1815

For most species, there are many minor differences, in colour, skeletal detail and abundance, between colonies from different west coast tropical and temperate localities. Likewise, there are regional differences between colonies from most west coast localities and the Great Barrier Reef. Nevertheless, *Favia* species are the most uniformly spread of all the major genera, as evidence by the similarity between the species complements of the Houtman Abrolhos Islands and the NW Shelf Reefs.

***Favia stelligera*** (Dana, 1846)

Veron, Pichon and Wijsman-Best (1977): 20-23, figs. 16-22.

Common throughout the distribution range.

Records: Ashmore Reef 734-86 (outer slope, 10-20m)

Scott Reef V

Rowley Shoals V

Dampier Archipelago 113-74, 114-74, 223-74, 216-73, 327-85, 328-85, 115-74 (reef front, 1-5m)

Montebello Is. 605-81 (3-4m)

Northern Ningaloo Reefs 575-81, 199-77, 200-77, 201-77, 206-81 (reef flat; lagoon, 2-3m and reef front, 8-11m)

Middle Ningaloo Reefs 848-85 (lagoon, 5-12m)

***Favia laxa*** (Klunzinger, 1879)

Veron, Pichon and Wijsman-Best (1977): 23-24, figs. 23-27, 415.

Rare.

Records: Ashmore Reef 778-86, 884-86 (lagoon, 0-13m)

Scott Reef 430-85 (lagoon, 6-7m)

Rowley Shoals V (lagoon 1-8m)

Houtman Abrolhos Is. 361-85

***Favia helianthoides*** Wells, 1954

Wells (1954): 458-459, pl. 174, figs. 3-6.

Rare.

Records: Ashmore Reef

Scott Reef 362-85 (reef slope)

Middle Ningaloo Reefs 950-85 (5-15m)

Wallabi Group (Houtman Abrolhos Is.) 74-88

***Favia pallida*** (Dana, 1846)

Veron, Pichon and Wijsman-Best (1977): 33-38, figs. 46-55, 422, 423.

Common throughout the distribution range.

Records: Ashmore Reef 725-86 (outer slope, 10-12m)

Admiralty Gulf 154-177, 509-84, 155-77, 33-78, 157-77 (intertidal)

Scott Reef V

Rowley Shoals 217-83, 213-83 (lagoon, 2-8m)

Dampier Archipelago 129-74, 110-74, 111-74, 127-74, 597-78, 211-73, 40-72, 20-72 (reef flat; reef front, 9-12m)

Barrow I. 272-74 (reef flat)

Passage Is.

Montebello Is. 802-81 (3-4m)

Northern Ningaloo Reefs 312-77, 313-77, 58-81, 488-77, 486-77, 581-81, 420-81, 340-85, 417-81, 424-81 (reef flat; back reef; reef front, 3-15m)

Middle Ningaloo Reefs 317-77, 965-81, 489-77, 79-72 (reef flat)  
Wallabi Group (Houtman Abrolhos Is.) 138-78, 477-77, 478-77 (lagoon, 12-30m)  
Easter Group (Houtman Abrolhos Is.) 475-77, 40-88 (2m)  
Pelsaert Group (Houtman Abrolhos Is.) 492-77 (3-5m)

***Favia speciosa*** (Dana, 1846)

Veron, Pichon and Wijsman-Best (1977): 36, fig. 45.

Veron, Pichon (1982): 136, figs. 279, 280

A very ill-defined species, probably rare throughout the distribution range. Has a wide range of colours (Veron 1986b, p. 457, fig. 3, at Scott Reef).

Previous records from Western Australia: Roebuck Bay (BMNH 95.10.9.133) Rosen (1968)

Records: Ashmore Reef  
Admiralty Gulf  
Cape Voltaire 4-78  
Scott Reef 334-85, 428-85 (lagoon)  
Rowley Shoals 455-83  
Dampier Archipelago (EPA)  
Northern Ningaloo Reefs 487-77 (back reef)

***Favia fava*** (Forskål, 1775)

Veron, Pichon and Wijsman-Best (1977): 24-32, figs. 28-36, 416-420

Common throughout the distribution range south to the Houtman Abrolhos Is. and the only *Favia* to extend to more southern localities.

Records: Ashmore Reef 602-86, 860-86 (lagoon, 0-13m)  
Bigge I. 238-87, 239-87, 240-87 (intertidal)  
Prince Frederick Harbour 233-87 (intertidal)  
Admiralty Gulf  
Scott Reef V  
Rowley Shoals 234-83 (lagoon, 2-8m)  
Dampier Archipelago 569-78, 502-80, 570-78, 349-79 (3-4m)  
Montebello Is. 801-81 (3-4m)  
Passage Is. 718-81 (2-5m)  
Northern Ningaloo Reefs 594-81, 561-81  
Dorre I. 863-81 (0-4m)  
South Passage, Shark Bay 496-79, 497-79 (12-18m)  
North I. (Houtman Abrolhos Is.) 343-85, 341-85 (reef flat)  
Wallabi Group (Houtman Abrolhos Is.) 294-78, 297-78, 228-74, 374-79, 474-77, 231-78 (1-15m)  
Easter Group (Houtman Abrolhos Is.) 42-73, 473-77, 87-88 (reef front, 6m)  
Houtman Abrolhos Is. 187-84, 188-84, 345-85, 189-84  
Rottneest I. 185-78 (4-5m)  
Cockburn Sound 7-59 (8m)

***Favia lizardensis*** Veron, Pichon and Wijsman-Best 1977

Veron, Pichon and Wijsman-Best (1977): 45-48, figs. 74-78, 428-430

Seldom common throughout the distribution range. Colours differ from the pinkish-brown with cream or green oral discs of east coast colonies by commonly being a uniform grey in tropical localities and a uniform brown at the Houtman Abrolhos Is.

Records: Ashmore Reef V  
Scott Reef V  
Rowley Shoals 254-83 (lagoon, 6m)  
Dampier Archipelago 500-80  
Wallabi Group (Houtman Abrolhos Is.) 342-85 (20-30m)

***Favia matthaii*** Vaughan, 1918

Veron, Pichon and Wijsman-Best (1977): 38-40, figs. 56-61, 424, 425.

Common throughout the distribution range.

Records: Ashmore Reef 888-86, 925-86 (outer slope, 12-20m)  
Scott Reef V  
Rowley Shoals 249-84, 330-85, 351-83, 365-83, 247-84 (reef flat; lagoon, 2-8m and outer slope, 15-35m)  
Dampier Archipelago 213-73, 185-84 (reef front)  
Northern Ningaloo Reefs 314-77, 421-81, 315-77, 316-77 (reef flat; back reef)  
Wallabi Group (Houtman Abrolhos Is.) V  
Easter Group (Houtman Abrolhos Is.) 116-88

***Favia rotumana*** (Gardiner, 1899)

Veron, Pichon and Wijsman-Best (1977): 40-43, figs. 62-66, 426

Common only in restricted upper reef biotopes.

Records: Ashmore Reef V  
Scott Reef V  
Rowley Shoals 476-83 (reef flat)  
Dampier Archipelago (EPA)

***Favia rotundata*** (Veron, Pichon and Wijsman-Best, 1977)

*Favites rotundata* Veron, Pichon and Wijsman-Best (1977): 64-65, figs. 110-117, 436-438.

Usually uncommon. Colonies from tropical localities (Veron 1986b, p. 462, fig. 2 at the Ningaloo Reefs) closely resemble those from the Great Barrier Reef, while those from the Abrolhos Is. are creamy-grey.

Records: Cartier Reef 782-86 (outer slope, 8-22m)  
Scott Reef V  
Dampier Archipelago (EPA)  
Northern Ningaloo Reefs 569-81 (lagoon, 6-9m)  
Middle Ningaloo Reefs 905-85 (5-12m)  
Easter Group (Houtman Abrolhos Is.) 46-88, 141-88  
Pelsaert Group (Houtman Abrolhos Is.) 493-77 (4-5m)

***Favia maxima*** Veron, Pichon and Wijsman-Best, 1977

Veron, Pichon and Wijsman-Best (1977): 43-45, figs. 67-73, 427.

Uncommon throughout the distribution range.

Records: Ashmore Reef V  
Scott Reef 344-85 (lagoon, 6-7m)  
Rowley Shoals 256-83, 421-83 (lagoon, 6-18m)  
Dampier Archipelago 501-80, 593-78 (3-4m)  
Ningaloo Reef Tract  
Wallabi Group (Houtman Abrolhos Is.)  
Easter Group (Houtman Abrolhos Is.) V



***Favia veroni*** Moll & Borel Best, 1984

Moll and Borel Best (1984): 48-50, figs. 1-3

Uncommon except at Dampier Archipelago. Usually pale brown in colour.

Records: Ashmore Reef V

Dampier Archipelago 561-78

Wallabi Group (Houtman Abrolhos Is.) 105-88

***Favia* sp. 1**

This is a distinctive species not recorded elsewhere from Australia.

Record: Rowley Shoals 231-83, 247-83

GENUS BARABATTOIA Yabe & Sugiyama, 1941

***Barabattoia amicum*** (Edwards & Haime, 1850)

*Favia amicum* complex, Veron, Pichon and Wijsman-Best (1977): 32-33, figs. 37-40, 420, 421.

*B. amicum*, Veron and Pichon 1982: 136.

Uncommon except for some turbid-water biotopes of the Houtman Abrolhos Is. Usually uniform dark brown.

Previous records from Western Australia: King Sound (as *B. mirabilis*, BMNH 1894.6.16.37), Rosen (1968).

Records: Dampier Archipelago 478-85

Northern Ningaloo Reefs 20-81 (back reef)

Wallabi Group (Houtman Abrolhos Is.) 476-77, 471-77, 271-78 (1-30m)

Easter Group (Houtman Abrolhos Is.) 329-85, 472-77, 39-88, 136-88 (reef edge)

Pelsaert Group (Houtman Abrolhos Is.) 494-77, 495-77 (4-5m)

Houtman Abrolhos Is. 190-84

Fremantle 337-80 (9-12m)

GENUS FAVITES Link, 1807

As with *Favia* species, there are many minor regional differences in colour, skeletal detail and abundance of most *Favites* species. As with *Favia*, most species are widely and uniformly spread.

***Favites abdita*** (Ellis & Solander, 1786)

Veron, Pichon and Wijsman-Best (1977): 54-59, figs. 90-96, 432, 433.

Common throughout most of the distribution range.

Records: Ashmore Reef V

Cockatoo I. 303-85

Scott Reef 425-85 (outer slope)

Dampier Archipelago 18-72, 112-73, 347-79, 125-74, 152-73, 509-78 (reef flat; reef front, 1-8m)

Montebello Is. 606-81 (3-4m)

Passage Is. 761-81 (intertidal)

Northern Ningaloo Reefs 26-81, 297-77, 270-77, 272-77, 584-81 (reef flat; back reef)

Middle Ningaloo Reefs 271-77 (back reef)

Dorre I. 862-81, 859-81 (0-4m)

Wallabi Group (Houtman Abrolhos Is.) 215-74, 219-74, 270-78, 298-78, 207-74, 302-85 (1-2m)

Easter Group (Houtman Abrolhos Is.) 18-73, 891-81, 6-73 (0-1m)

Pelsaert Group (Houtman Abrolhos Is.) 298-85, 292-77 (2-5m)  
 Houtman Abrolhos Is. 335-85, 205-84  
 Port Gregory 585-84, 209-84, 207-84, 208-84 (inner edge of reef)  
 Port Denison 206-84, 246-84  
 Fremantle 364-80 (9-12m)  
 Rottnest I. 107-58, 90-85, 106-58 (1-2m)  
 Cockburn Sound 6-59 (4-5m)  
 Geographie Bay 53-59 (9m)

***Favites halicora*** (Ehrenberg, 1834)

Veron, Pichon and Wijsman-Best (1977): 59-61, figs. 97-101, 434.

Common throughout the distribution range, especially on upper reef slopes of the Houtman Abrolhos Is. (Veron 1986b, p. 471, fig. 1) where it is always cream or greenish-yellow.

Records: Ashmore Reef V

Kimberley Coast

Scott Reef 338-85 (outer slope)

Rowley Shoals 199-83, 257-83, 342-83 (lagoon, 2-8m and outer slope, 15-30m)

Dampier Archipelago (EPA)

Northern Ningaloo Reefs 269-77 (reef flat)

Middle Ningaloo Reefs 832-85 (lagoon, 5-12m)

Wallabi Group (Houtman Abrolhos Is.) 237-78, 466-77, 291-78, 299-78, 295-78, 296-78, 470-77 (0-29m)

Pelsaert Group (Houtman Abrolhos Is.) 301-85, 496-77 (1-5m)

***Favites flexuosa*** (Dana, 1846)

Veron, Pichon and Wijsman-Best (1977): 61-64, figs. 102-109, 435.

Common over most of the distribution range.

Previous records from Western Australia: 42 & 48 miles WSW of Cape Jaubert 70 and 140ft (21 & 42m), (as *Favia vasta*) Folkson (1919)

Records: Ashmore Reef 851-86 (outer slope, 10-20m)

Admiralty Gulf 319-85

Yampi Sound 311-85

Dampier Archipelago 208-73, 206-73, 787-81, 112-74, 123-74, 124-74, 251-84, 516-78 (9-12m)

Northern Ningaloo Reefs 310-77, 197-81 (reef flat, back reef)

Middle Ningaloo Reefs 318-77, 83-72 (reef flat)

Southern Ningaloo Reefs 963-81 (reef flat)

Port Gregory

Wallabi Group (Houtman Abrolhos Is.) 18-87, 112-88, 159-88

Rottnest I. 962-85 (1-2m)

Cockburn Sound 304-85

***Favites chinensis*** (Verrill, 1866)

Veron, Pichon and Wijsman-Best (1977): 53-54, figs. 83-88

Uncommon over most of distribution range.

Records: Ashmore Reef 813-86, 814-86 (outer slope, 10-20m)

Admiralty Gulf 8-78, 3-78, 322-85 (intertidal)

Dampier Archipelago 226-73, 117-73, 567-78, 115-73 (reef flat, reef front)

Barrow I. 265-74 (reef flat)

Northern Ningaloo Reefs 192-81, 295-77, 296-77, 298-77, 299-77, 576-81, 210-81 (reef flat; back reef; reef front, 8-11m)  
Middle Ningaloo Reefs 903-85 (lagoon, 5-12m)  
Bernier I. 839-81 (2-4m)  
Wallabi Group (Houtman Abrolhos Is.) 326-85

***Favites complanata*** (Ehrenberg, 1834)

Veron, Pichon and Wijsman-Best (1977): 65-68, figs. 118-121, 442

Common throughout the distribution range (Veron 1986b, p. 474, fig. 2, at the Houtman Abrolhos Is.).

Records: Ashmore Reef 866-86, 840-86, 889-86 (lagoon, 0-18m)  
Kimberley Coast  
Scott Reef 337-85 (lagoon slope)  
Dampier Archipelago (EPA)  
Barrow I. 266-74 (reef flat)  
Northern Ningaloo Reefs 195-81, 311-77 (reef flat; reef front, 6m)  
Middle Ningaloo Reefs 957-85, 80-72  
North I. (Houtman Abrolhos Is.) 297-85 (1m)  
Wallabi Group (Houtman Abrolhos Is.) 309-85, 70-88, 161-88 (1-2m)  
Easter Group (Houtman Abrolhos Is.) 465-77, 60-88, 143-88  
Houtman Abrolhos Is. 310-85  
Cockburn Sound  
Geographe Bay

***Favites pentagona*** (Esper, 1794)

Veron, Pichon and Wijsman-Best (1977): 68-72, figs. 122-127, 439-441

Common only in tropical localities.

Records: Ashmore Reef 611-86, 620-86, 737-86, 746-86, 871-86, 887-86 (outer slope, 12-20m)  
Troughton I. 299-85  
Scott Reef V  
Rowley Shoals 350-83, 451-83, 223-83 (lagoon, 2-8m and outer slope, 15-30m)  
Dampier Archipelago 222-73, 428-78, 503-80, 429-78, 573-78, 177-84, 178-84, 179-84, 180-84, 181-84, 182-84, 773-81, 210-73, 19-72, 121-74, 782-81, 776-81 (intertidal; reef front, 3-6m)  
Montebello Is. 722-81 (3-4m)  
Passage Is.  
Northern Ningaloo Reefs 571-81  
Middle Ningaloo Reefs 273-77 (reef flat)  
Dorre I. 857-81, 855-81, 856-81 (0-4m)  
Bernier I. 841-81, 842-81 (2-4m)  
Shark Bay 168-81, 763-81 (2-16m)  
South Passage 560-79, 817-81 (6-12m)  
Dirk Hartog I. 33-59, 814-81 (0-2m)  
Port Gregory 587-84, 186-84  
Wallabi Group (Houtman Abrolhos Is.)  
Easter Group (Houtman Abrolhos Is.) 79-88  
Houtman Abrolhos Is. 243-84  
Lancelin 157-81

***Favites russelli*** (Wells, 1954)

Veron, Pichon and Wijsman-Best (1977): 72-73, figs. 129-137, 443, 444.

Usually common.

Records: Ashmore Reef 505-86, 681-86, 839-86, 815-86, 824-86, 893-86 (outer slope, 10-20m, lagoon, 0-18m)  
Scott Reef 333-85 (outer slope)  
Rowley Shoals 268-83, 201-83, 258-83 (lagoon, 2-8m)  
Middle Ningaloo Reefs 861-85, 935-85 (1-12m)  
Dorre I. 866-81 (0-4m)  
North I. (Houtman Abrolhos Is.) 305-85, 315-85, 313-84 (4m)  
Wallabi Group (Houtman Abrolhos Is.) 411-77, 243-78 (1-12m)  
Easter Group (Houtman Abrolhos Is.)  
Pelsaert Group (Houtman Abrolhos Is.) 314-85, 323-85 (back reef)  
Port Gregory 109-58, 594-81  
Fremantle 316-85  
Rottnest I. 91-85, 83-85 (1-2m)  
Cockburn Sound 354-79 (2-3m)

***Favites* sp. 1**

A very distinctive species having characteristics of *Favites* and *Favia*.

Records: Middle Ningaloo Reefs 950-85  
Easter Group (Houtman Abrolhos Islands)

**GENUS GONIASTREA** Edwards & Haime, 1848

For most species, there are significant differences in colour and/or skeletal detail, between colonies from temperate and tropical localities. The latter are mostly indistinguishable from colonies from the Great Barrier Reef.

***Goniastrea retiformis*** (Lamarck, 1816)

Veron, Pichon and Wijsman-Best (1977): 79-80, figs. 145-150, 174, 449.

Common in tropical localities, especially on intertidal reef flats of NW Shelf reefs (Veron 1986b, p. 480, fig. 4, at Seringapatam reef).

Records: Cantier Reef 785-86 (reef flat, 0m)  
Kimberley Coast  
Scott Reef 427-85 (reef flat)  
Rowley Shoals 210-83 (lagoon, 2-8m)  
Dampier Archipelago 221-84, 222-84, 432-78, 220-73, 159-73, 31-72, 32-72, 33-72, 219-73, 223-73, 121-73, 224-73, 225-73, 218-73, 774-81, 241-73, 431-78, 230-84, 413-85, 408-86 (reef flat, 0-6m)  
Montebello Is. 610-81, 611-81 (3-4m)  
Barrow I. 250-74 (0-1m)  
Northern Ningaloo Reefs 179-81 (lagoon)  
Middle Ningaloo Reefs 440-78  
Southern Ningaloo Reefs 457-78 (intertidal)  
Port Gregory 213-84

***Goniastrea edwardsi*** Chevalier, 1971

Veron, Pichon and Wijsman-Best (1977): 80-83, figs. 151-156, 173.

Common in most tropical localities.

Records: Ashmore Reef V  
Scott Reef V  
Rowley Shoals 211-83 (lagoon, 2-8m)

Dampier Archipelago (EPA)  
Passage Is. 617-81, (2-5m)  
Northern Ningaloo Reefs 265-77, 577-81, 495-81, 266-77, 267-77 (reef flat; reef front, 8-11m)  
Middle Ningaloo Reefs 63-72 (2m)  
Southern Ningaloo Reefs 439-78 (reef flat)  
Bernier I. 829-81  
Wallabi Group (Houtman Abrolhos Is.) 321-85

***Goniastrea favulus*** (Dana, 1846)

Veron, Pichon and Wijsman-Best (1977): 86-87, figs. 164-167.

Usually uncommon except for some intertidal tropical biotopes.

Records: Ashmore Reef V

Scott Reef V

Dampier Archipelago 513-78

Montebello Is. 609-81 (3-4m)

Middle Ningaloo Reefs 520-78, 851-85, 959-85, 932-85 (2-20m)

Dorre I. 837-81

Bernier I. 829-81

North I. (Houtman Abrolhos Is.) 276-85

Wallabi Group (Houtman Abrolhos Is.)

Easter Group (Houtman Abrolhos Is.)

***Goniastrea aspera*** Verrill, 1865

Veron, Pichon and Wijsman-Best (1977): 83-85, figs. 157-163

Common in tropical localities, especially on intertidal reef flats of NW Shelf reefs (Veron 1986b, p. 483, fig. 1, at Scott Reef).

Records: Ashmore Reef 661-86, 674-86, 698-86, 896-86 (lagoon 0-6m)

Scott Reef V

Admiralty Gulf 156-77 (intertidal)

Yampi Sound

Broome 488-83, 494-83 (intertidal)

Dampier Archipelago 209-73, 205-73, 350-79, 598-78, 572-78, 324-85, 515-78, 600-78 (reef flat; reef front, 9-12m)

Montebello Is. 725-81 (2-3m)

Passage Is. 716-81 (2-5m)

Northern Ningaloo Reefs 582-81, 205-81 (1-4m)

Middle Ningaloo Reefs

Bernier I. 847-81 (2-4m)

Shark Bay 809-81, 715-81 (2-6m)

South Passage 811-81, 812-81 (3-10m)

Dirk Hartog I. 816-81, 34-59, 692-81, 813-81, 815-81, 819-81, 820-81, 821-81 (0-6m)

North I. (Houtman Abrolhos Is.) 320-85

Wallabi Group (Houtman Abrolhos Is.) 317-85, 321-85, 272-78, 56-88, 82-88 (reef flat)

Easter Group (Houtman Abrolhos Is.) 413-77, 467-77 (reef flat)

Houtman Abrolhos Is. 339-85

Port Gregory 105-58, 318-85, 586-84, 113-58

Green Head 971-79 (4-5m)

Fremantle 362-80 (9-12m)

Rottneest I.

Garden I. 12-84 (1-2m)

Cockburn Sound 355-79, 356-79, 5-59 (2-9m)

Geographe Bay 66-81, 307-78 (6-18m)

***Goniastrea pectinata*** (Ehrenberg, 1834)

Veron, Pichon and Wijsman-Best (1977): 87-91, figs. 168-172, 175, 450

Common throughout the distribution range, especially on reef flats and shallow lagoons where, at the Houtman Abrolhos Is., colonies tend to be sub-meandroid (Veron 1986b, p. 484, fig. 3).

Records: Ashmore Reef 707-86, 776-86 (outer slope, 6-14m)

Cape Voltaire 507-84, 6-78

Scott Reef 429-85 (outer slope)

Rowley Shoals 231-83 (lagoon, 2-8m)

Dampier Archipelago 497-80, 233-84, 416-85

Montebello Is.

Northern Ningaloo Reefs 568-81, 289-77, 288-77 (reef flat, lagoon, 6-9m)

Middle Ningaloo Reefs 275-77, 276-77, 277-77, 964-81, 833-85 (reef flat; 0-12m)

Dorre I. 860-81 (0-4m)

North I. (Houtman Abrolhos Is.) 279-85, 288-85 (3m)

Wallabi Group (Houtman Abrolhos Is.) 410-77, 148-88 (reef flat)

Easter Group (Houtman Abrolhos Is.) 41-73, 412-77, 414-77 (0-1m)

Pelsaert Group (Houtman Abrolhos Is.) 270-85, 271-85 (1-2m)

Houtman Abrolhos Is. 241-84, 244-84, 248-84, 273-85, 214-84, 245-84, 306-85

***Goniastrea australensis*** (Edwards & Haime, 1857)

Veron, Pichon and Wijsman-Best (1977): 92-95, figs. 176-182, 451

Very common throughout the distribution range. Floors and walls of valleys are usually of very different colours, but they are sometimes the same colour (Veron 1986b, p. 486, fig. 2, at Dampier Archipelago) giving the colony a very different appearance *in situ*.

Records: Admiralty Gulf 151-77 (intertidal)

Dampier Archipelago 126-74 (reef front)

Middle Ningaloo Reefs 862-85, 922-85 (lagoon, 5-12m and outer slope, 8-20m)

Dorre I. 854-81, 114-81 (0-4m)

Shark Bay 91-81

Dirk Hartog I. 14-59, 90-81 (0-2m)

South Passage, Shark Bay 501-79, 499-79, 498-79, 500-79, 166-81 (2-12m)

North I. (Houtman Abrolhos Is.) 281-85, 283-85, 287-85, 288-85 (3m)

Wallabi Group (Houtman Abrolhos Is.) 204-74, 278-85, 208-74, 417-77, 301-78, 284-85 (0-30m)

Easter Group (Houtman Abrolhos Is.) 15-73, 2-73, 8-73, 19-73, 64-73, 25-73, 285-85, 30-73 (0-12m)

Pelsaert Group (Houtman Abrolhos Is.) 274-85, 263-77, 264-77 (1-5m)

Port Gregory 210-84, 211-84

Port Denison 220-84

Green Head 968-79 (4-5m)

Jurien Bay 65-85

Lancelin 159-81, 25-88 (1-3m)

Perth 181-78, 286-85, 60-85, 282-85 (1-6m)

Rottneet I. 82-85, 177-74, 280-85, 80-85, 94-85 (1-4m)

Fremantle 112-58

Cockburn Sound 1-59 (7m)

Geographe Bay 303-78, 60-59 (16-18m)



***Goniastrea palauensis*** (Yabe, Sugiyama & Eguchi, 1936)

Veron, Pichon and Wijsman-Best (1977): 95-97, figs. 183-186, 452.

Uncommon throughout the distribution range.

Records: Ashmore Reef V

Scott Reef V

Dampier Archipelago 229-84

Ningaloo Reefs

Easter Group (Houtman Abrolhos Is.) 37-88, 41-88

Houtman Abrolhos Is. 242-84, 240-84

Fremantle 336-80, 341-80 (9-12m)

***Goniastrea* sp. 1**

Coralla attributed to this species have skeletal characters close to *G. australensis* but are mono-centric.

Records: Wallabi Group (Houtman Abrolhos Is.) 57-87, 58-87, 59-87

Easter Group (Houtman Abrolhos Is.)

GENUS PLATYGYRA Ehrenberg, 1834

Colonies of species occurring on both the west coast and Great Barrier Reef are mostly indistinguishable.

***Platygyra daedalea*** (Ellis & Solander, 1786)

Veron, Pichon and Wijsman-Best (1977): 98-103, figs. 190-196, 453, 454.

Common throughout the distribution range.

Previous records from Western Australia: King Sound; Adolphus I. (15°09'S : 128°10'E) (as *Coeloria daedalea*), both Matthai (1928).

Records: Ashmore Reef 649-86 (outer slope, 12-20m)

Admiralty Gulf 407-86

Cassini I.

Cape Voltaire 5-78

Koolan I. 872-86

Yampi Sound 277-85

Scott Reef V

Rowley Shoals 355-83, 345-83, 431-83 (reef flat; outer slope, 15-30m)

Dampier Archipelago 29-72, 124-73, 120-74, 109-74, 155-73, 308-85 (reef flat; reef front)

Montebello Is. 616-81, 619-81 (2-4m)

Northern Ningaloo Reefs 274-77, 37-78, 268-77, 574-81 (reef flat, back reef)

Middle Ningaloo Reefs 65-72, 519-78, 940-81, 958-85, 953-85 (reef flat; 0-12m)

Southern Ningaloo Reefs 937-81 (back reef)

South Passage, Shark Bay 489-79 (4-5m)

Wallabi Group (Houtman Abrolhos Is.) 229-74, 302-78, 199-74, 217-74, 192-74 (1-2m)

Easter Group (Houtman Abrolhos Is.) 4-73 (0-1m)

***Platygyra lamellina*** (Ehrenberg, 1834)

Veron, Pichon and Wijsman-Best (1977): 103-105, figs. 197-200, 455, 456.

Common at the Houtman Abrolhos Is., much less common than *P. daedalea* in tropical localities.

Previous records from Western Australia: King Sound; Roebuck Bay (BMNH 95.10.9.182) (as *Coeloria lamellina*) both Matthai (1928)

Records: Ashmore Reef V  
 Scott Reef 336-85 (lagoon 6-7m)  
 Cape Voltaire 506-84  
 Broome 292-85  
 Dampier Archipelago 119-74 (reef flat)  
 Montebello Is.  
 Ningaloo Reef Tract (EPA)  
 Dirk Hartog I. 32-59 (0-1m)  
 Wallabi Group (Houtman Abrolhos Is.) 206-74, 418-77, 247-78 (6-30m)  
 Easter Group (Houtman Abrolhos Is.) 59-73, 78-88 (0-1m)  
 Pelsaert Group (Houtman Abrolhos Is.) 275-85 (4-6m)  
 Houtman Abrolhos Is. 258-84, 443-84, 411-85  
 Port Gregory  
 Geraldton 484-84

***Platygyra sinensis*** (Edwards & Haime, 1849)

Veron, Pichon and Wijsman-Best (1977): 105-108, figs. 201-206, 457.

Common in tropical localities.

Records: Ashmore Reef 614-86, 705-86, 910-86 (outer slope, 8-20m)  
 Admiralty Gulf 147-77 (intertidal)  
 King Sound 135-85  
 Scott Reef V  
 Rowley Shoals 358-83, 276-83 (reef flat; outer slope, 16-35m)  
 Lacepede Is. 464-83  
 Broome 484-83 (intertidal)  
 Dampier Archipelago 123-73, 514-78, 237-73, 108-74, 433-78, 231-84 (0-4m)  
 Barrow I. 269-74 (intertidal)  
 Northern Ningaloo Reefs 290-77, 291-77, 201-81, 194-81, 454-81, 303-77, 592-81 (reef flat;  
 back reef, 2-5m and reef front, 8-11m)  
 Middle Ningaloo Reefs 446-78, 81-72, 344-79, 64-72, 449-78, 959-85 (reef flat)  
 Southern Ningaloo Reefs 518-78 (intertidal)  
 Port Gregory 111-58

***Platygyra pini*** Chevalier, 1975

Veron, Pichon and Wijsman-Best (1977): 108-110, figs. 207-213, 458.

Common in tropical localities.

Records: Ashmore Reef 598-86, 795-86, 796-86, 804-86, 820-86, 831-86, 849-86, 861-86, 869-86,  
 886-86, 901-86 (lagoons, outer slopes, 0-20m)  
 Scott Reef 296-85, 424-85, 421-85 (lagoon 6-7m; outer slope)  
 Rowley Shoals 308-83, 249-83, 197-83, 200-83, 267-83 (lagoon 2-8m and outer slope,  
 16-35m)  
 Dampier Archipelago 234-84, 235-84, 237-84, 152-74  
 Montebello Is. 720-81 (3-4m)  
 Northern Ningaloo Reefs 189-81, 308-77 (reef flat; back reef)  
 Middle Ningaloo Reefs 904-85 (lagoon, 5-12m)  
 Ningaloo Reef Tract 521-78 (lagoon)  
 Bernier I. 832-81

***Platygyra verweyi*** Wijsman-Best, 1976

Wijsman-Best (1976): 55-56, pl. 6 fig. 4.

Rare.

Records: Ashmore 898-86, 920-86, 922-86 (reef flat, 0m)

Scott Reef 295-85 (reef flat)

Prince Frederick Harbour 228-87 (intertidal)

Bigge I. 236-87 (intertidal)

Cassini I. 14-78

Rowley Shoals 276-83

Dampier Archipelago 307-85, 834-81, 436-78

Northern Ningaloo Reefs 423-81, 53-81, 45-81, 586-81, 57-81

Middle Ningaloo Reefs 857-85, 803-85, 835-85, 449-78, 345-79, 300-77, 301-77, 304-77, 305-77, 306-77, 307-77 (intertidal, 0-12m)

***Platygyra ryukyuensis*** Yabe & Sugiyama, 1935

This species is common on the south coast of Papua New Guinea and occurs north to Japan. It has not been recorded from eastern Australia.

Records: Ashmore Reef 749-86, 897-86, 899-86, 900-86, 908-86, 911-86, 914-86, 918-86, 919-86 (reef flat; lagoon; outer slope, 0-30m)

Scott Reef

Middle Ningaloo Reefs 836-85

GENUS LEPTORIA Edwards & Haime, 1848

***Leptoria phrygia*** (Ellis & Solander, 1786)

Veron, Pichon and Wijsman-Best (1977): 115-117, figs. 223-226, 460.

Common throughout the distribution range.

Records: Ashmore Reef 613-86 (0-6m)

Scott Reef 412-85 (lagoon, 6-7m)

Rowley Shoals 332-83 (outer slope, 15-30m)

Dampier Archipelago 117-74, 264-73, 289-85, 290-85, 291-85, 106-74, 107-74, 118-74, 125-73, 116-74 (reef front)

Montebello Is. 607-81 (3-4m)

Barrow I. 251-74 (back reef)

Northern Ningaloo Reefs 455-81, 460-81, 203-77 (reef flat; back reef; reef front, 8-11m)

Middle Ningaloo Reefs 72-72, 559-78 (reef flat, back reef)

GENUS OULOPHYLLIA Edwards & Haime, 1848

***Oulophyllia crispa*** (Lamarck, 1816)

Veron, Pichon and Wijsman-Best (1977): 118-124, figs. 227-237, 447, 461.

Common throughout the distribution range. Usually a uniform grey in colour.

Records: Ashmore Reef V

Scott Reef V

Rowley Shoals 487-84, 498-84, 405-83 (lagoon, 2-18m)

Dampier Archipelago 249-85

Northern Ningaloo Reefs 51-81, 456-81, 459-81 (back reef; lagoon 2-3m and reef front, 8-11m)

Middle Ningaloo Reefs 939-81, 942-81, 964-85 (back reef; reef front, 8-20m)

***Oulophyllia bennettiae*** (Veron, Pichon and Wijsman-Best, 1977)

*Favites bennettiae* Veron, Pichon and Wijsman-Best (1977): 73, 76-78, figs. 138-144, 445-448.

Uncommon. Usually a uniform grey in colour (Veron 1986b, p. 500, fig. 1, from Dampier Archipelago) in contrast to colonies from eastern Australia.

Records: Ashmore Reef V

Scott Reef V

Rowley Shoals 473-83

Dampier Archipelago 183-84, 312-85, 331-85

GENUS **MONTASTREA** de Blainville, 1830

***Montastrea curta*** (Dana, 1846)

Veron, Pichon and Wijsman-Best (1977): 137-139, figs. 257-263, 462.

Very common on upper reef slopes and reef flats of the Houtman Abrolhos Is. (Veron 1986b, p. 504, fig. 2) where colonies are primarily encrusting. Also common at most other localities.

Records: Ashmore Reef 603-86 (outer slope, 10-20m)

Scott Reef V

Rowley Shoals 373-83 (outer slope, 16-35m)

Broome 489-83 (intertidal)

Dampier Archipelago 250-84, 215-73 (reef flat)

Montebello Is. 721-81 (3-4m)

Northern Ningaloo Reefs 346-77, 38-78, 345-77 (reef front)

Bernier I. 840-81 (2-4m)

Dorre I. 867-81 (0-4m)

Dirk Hartog I. 20-59, 13-59, 818-81 (0-2m)

Port Gregory 596-84

North I. (Houtman Abrolhos Is.) 347-85, 352-85 (reef flat)

Wallabi Group (Houtman Abrolhos Is.) 346-85, 349-85, 444-77, 351-85, 353-85 (reef flat; 0-2m)

Easter Group (Houtman Abrolhos Is.) 32-73, 442-77 (0-1m)

Pelsaert Group (Houtman Abrolhos Is.) 348-85, 350-85 (back reef)

Houtman Abrolhos Is. 396-85

***Montastrea annuligera*** (Edwards and Haime, 1849)

Veron *et al.* (1977): 139-143, figs. 264-268.

Recorded from the west coast only at Ashmore Reef.

Records: Ashmore Reef 626-86, 767-86, 808-86, 877-86 (outer slope, 8-20m)

***Montastrea magnistellata*** Chevalier, 1971

Veron, Pichon and Wijsman-Best (1977): 143, figs. 269-273, 463, 464.

Uncommon, usually grey or brown, sometimes with concentric greens and pinks (as illustrated, Veron *et al.* 1977, fig. 464).

Records: Ashmore Reef V

Scott Reef V

Rowley Shoals 354-85 (lagoon, 6m)

Dampier Archipelago (EPA)

Montebello Is.

Passage Is.

Bundegi Reef, Exmouth Gulf 588-81 (2-4m)

Middle Ningaloo Reefs 936-81

Bernier I. 846-81 (2-4m)

Wallabi Group (Houtman Abrolhos Is.) 55-88, 152-88

Easter Group (Houtman Abrolhos Is.) 39-73, 468-77 (9m)

***Montastrea valenciennesi*** (Edwards & Haime, 1848)

Veron, Pichon and Wijsman-Best (1977): 144-149, figs. 274-283, 465.

Usually uncommon.

Records: Ashmore Reef 609-86, 685-86 (outer slope, 8-20m)

Scott Reef V

Rowley Shoals 360-85 (2-5m)

Broome 481-83, 462-83 (intertidal)

Dampier Archipelago 438-78, 214-73, 421-78, 437-78 (reef front, 2-12m)

Montebello Is.

Passage Is. 614-81, 804-81 (intertidal; 0-5m)

Middle Ningaloo Reefs 571-78 (lagoon)

Bernier I. 845-81, 844-81 (2-4m)

Dorre I. 836-81

Dirk Hartog I. 704-81, 457-79 (4-6m)

South Passage, Shark Bay 458-79, 456-79 (2-5m)

Easter Group (Houtman Abrolhos Is.) 892-81 (0-1m)

GENUS PLESIASTREA Edwards & Haime, 1848

***Plesiastrea versipora*** (Lamarck, 1816)

Veron, Pichon and Wijsman-Best (1977): 149-153, figs. 284-294.

The most widespread of all Australian hermatypic corals but seldom common in any single locality. Usually green at temperate localities except the Houtman Abrolhos Is. where it is usually pale brown.

Previous records from Western Australia: King George Sound (as *A. galaxea*) Quoy & Gaimard (1833); 42 and 45 miles WSW of Cape Jaubert 70ft & 66ft (21 & 20m) (as *P. urvillei*), Folkesson (1919); south Western Australia, Wells (1962); Carnac I. (as *P. urvillei*) Marsh and Hodgkin (1962).

Records: Ashmore Reef 766-85 (lagoon, 10-13m)

Scott Reef 372-85 (outer slope, 15-30m)

Rowley Shoals V

Broome 493-83 (intertidal)

Dampier Archipelago 34-72, 35-72, 130-74 (reef flat)

Barrow I. 270-74, 255-74, 264-74, 263-74, 271-74 (reef flat)

Northern Ningaloo Reefs 348-77 (lagoon)

Middle Ningaloo Reefs 941-81, 918-85 (lagoon; outer slope, 8-20m)

Bernier I. 827-81, 831-81, 833-81 (0-2m)

Dorre I. 858-81 (0-4m)

Shark Bay 762-81 (18m)

Dirk Hartog I. 492-79 (5-6m)

South Passage, Shark Bay 493-79, 495-79 (4-15m)

North I. (Houtman Abrolhos Is.)

Wallabi Group (Houtman Abrolhos Is.) 300-78, 376-77, 266-78, 165-78, 66-88, 67-88 (0-30m)

Easter Group (Houtman Abrolhos Is.) 375-77, 374-77, 440-77, 373-77, 48-88 (reef flat)

Pelsaert Group (Houtman Abrolhos Is.) 56-72 (back reef)

Port Gregory 146-58, 145-58, 212-84, 595-84, 332-85  
 Green Head  
 Jurien Bay 71-85, 74-85  
 Quinns Rock to Lancelin 160-81, 161-81  
 Rottnest I. 13-76, 508-84, 176-74, 148-58, 187-78 (1-10m)  
 Perth 59-85, 182-78, 166-77  
 Fremantle 183-78, 335-80, 758-84 (9-12m)  
 Garden I. 511-84, 9028, 122-58  
 Cockburn Sound 4-59, 121-58, 468-78, 144-58, 352-79 (1-5m)  
 Bunbury 162-77, 58-59, 701-81, 702-81, 999-81  
 Geographe Bay 55-59, 451-79, 308-78, 278-73 (16-20m)  
 King George Sound 365-80, 1-87 (10-12m)  
 Bremer Bay  
 Hopetoun 412-86, 413-86 (intertidal; 0-9m)  
 Esperance 410-86 (10m)  
 Recherche Archipelago 125-85, 400-86 (12m)  
 Duke of Orleans Bay

GENUS OULASTREA Edwards & Haime, 1848

***Oulastrea crispata*** (Lamarck, 1816)

Common on reef flats of the Kimberley Coast in sheltered bays.

Records: Admiralty Gulf 150-77 (intertidal)  
 Bigge I. 559-87, 567-87 (intertidal)  
 Prince Frederick Harbour 568-87, 574-87 (intertidal)

GENUS DIPLOASTREA Matthai, 1914

***Diploastrea heliopora*** (Lamarck, 1816)

Veron, Pichon and Wijsman-Best (1977): 153-155, figs. 295-297.

Usually uncommon although very conspicuous.

Records: Ashmore Reef V  
 Scott Reef V  
 Rowley Shoals V (outer slope)  
 Dampier Archipelago 454-78, 455-78, 456-78, 420-78 (3-9m)  
 Middle Ningaloo Reefs 917-85 (outer slope, 8-20m)

GENUS LEPTASTREA Edwards & Haime, 1848

***Leptastrea inaequalis*** Klunzinger, 1879

Veron and Pichon (1982): 138.

Veron, Pichon and Wijsman-Best (1977), as *L. cf. bottae*, non *L. bottae* (Edwards and Haime, 1849): 155-157, figs. 300-302, 466.

Uncommon, restricted to NW Shelf reefs only.

Records: Ashmore Reef V  
 Scott Reef V  
 Rowley Shoals 239-83 (lagoon, 2-8m)

***Leptastrea bottae*** (Edwards and Haime, 1849)

Only two specimens of this species have been recorded from Western Australia; none have been recorded from eastern Australia. The specimen from the Ningaloo Reefs is



similar to the holotype, figured, Veron *et al.* (1977), p. 156. (*Leptastrea inaequalis* Klunzinger, 1879 is not a junior synonym of this species as indicated by Veron *et al.*).

Records: Ashmore Reef 745-86 (outer slope, 6-14m)  
Middle Ningaloo Reefs 938-85 (outer slope, 5-15m)

***Leptastrea purpurea*** (Dana, 1846)

Veron, Pichon and Wijsman-Best (1977): 158-161, figs. 303-310, 467.

Common throughout the distribution range. Colonies at the Houtman Abrolhos Is. usually have tentacles extended during the day (Veron 1986b, p. 516, figs. 2,3).

Records: Ashmore Reef 819-86, 905-86 (outer slope, 10-20m)  
Prince Frederick Harbour 232-87 (intertidal)  
Scott Reef 404-85, 406-85  
Rowley Shoals 239-83  
Dampier Archipelago 36-72, 775-81, 977-79, 223-84, 224-84  
Ningaloo Reefs  
Wallabi Group (Houtman Abrolhos Is.) 178-78, 75-88  
Easter Group (Houtman Abrolhos Is.) 38-88, 42-88, 44-88, 142-88  
Houtman Abrolhos Is. 218-84, 215-84, 216-84, 217-84, 219-84

***Leptastrea transversa*** Klunzinger, 1879

Veron, Pichon and Wijsman-Best (1977): 162-163, figs. 311-318, 468.

Usually uncommon.

Records: Ashmore Reef 727-86, 848-86 (outer slope, 3-14m)  
Prince Frederick Harbour 231-87 (intertidal)  
Scott Reef 407-85, 408-85, 400-85 (lagoon 6-7; outer slope)  
Rowley Shoals 317-83 (outer slope, 16-35m)  
Northern Ningaloo Reefs 570-81, 49-81 (reef flat; reef front, 6m)  
Middle Ningaloo Reefs 882-85, 938-85, 939-85, 940-85 (5-15m)

***Leptastrea pruinosa*** Crossland, 1952

Veron, Pichon and Wijsman-Best (1977): 163-165, figs. 319-326, 469-472.

Uncommon throughout the distribution range.

Records: Ashmore Reef 870-86, 941-86, 945-86 (outer slopes, 8-20m)  
Kimberley Coast  
Scott Reef 403-85, 405-85, 397-85, 417-85 (lagoon, 6-7m; outer slope)  
Rowley Shoals 237-83, 322-83 (lagoon, 2-8m and outer slope, 16-35m)  
Dampier Archipelago 226-84, 227-84, 781-81, 225-84, 401-85  
Northern Ningaloo Reefs 573-81 (reef flat)  
Middle Ningaloo Reefs 821-85, 822-85 (lagoon, 5-12m)  
Houtman Abrolhos Is.

***Leptastrea* sp. 1**

An unidentified species recorded only from Ashmore Reef.

Records: Ashmore Reef 745-86

**GENUS CYPHASTREA** Edwards & Haime, 1848

***Cyphastrea serailia*** (Forskål, 1775)

Veron, Pichon and Wijsman-Best (1977): 169-173, figs. 330-341.

Very common and very polymorphic throughout the distribution north from the Houtman Abrolhos Is.

Previous records from Western Australia: North-west Australia, Studer (1877) in Mathai (1914).

Records: Ashmore Reef 890-86, 942-86 (lagoon, outer slope)  
Prince Frederick Harbour 569-87, 571-87 (intertidal)  
Scott Reef 367-85, 374-85, 375-85, 365-85 (reef flat; lagoon, 6-7m; outer slope)  
Rowley Shoals 385-85 (lagoon, 8-18m)  
Broome 486-83 (intertidal)  
Dampier Archipelago 406-78, 407-78, 381-85, 14-76, 387-85, 408-78, 384-85 (intertidal; 0-3m)  
Passage Is. 373-80, 374-80 (12m)  
Barrow I. 273-74 (intertidal)  
Northern Ningaloo Reefs 9-78, 10-78, 39-78, 77-81 (reef flat)  
Middle Ningaloo Reefs 65-78, 71-72, 834-85, 885-85, 830-85 (reef flat; lagoon, 5-12m)  
Southern Ningaloo Reefs 445-78 (lagoon, 4m)  
Bernier I. 113-81 (2-4m)  
Dorre I. 759-81 (12m)  
Shark Bay 690-81 (2m)  
South Passage, Shark Bay 472-79, 474-79, 477-79 (4-9m)  
Dirk Hartog I. 30-59, 31-59, 473-79, 476-79, 475-79 (0-3m)  
North I. (Houtman Abrolhos Is.) 377-85, 378-85, 379-85 (reef flat)  
Wallabi Group (Houtman Abrolhos Is.) 395-85, 390-85, 214-78, 211-78, 210-78, 212-78, 215-78, 184-74, 224-78, 225-78, 209-78, 242-78 (1-19m)  
Easter Group (Houtman Abrolhos Is.) 28-73, 435-77, 436-77, 437-77, 441-77, 438-77, 439-77, 901-81 (0-6m)  
Pelsaert Group (Houtman Abrolhos Is.) 60-72, 380-85, 382-85, 383-85 (1-2m)  
Houtman Abrolhos Is. 400-84, 401-84, 403-84, 405-84, 406-84, 407-84, 408-84, 409-84  
Port Gregory 711-84, 597-84, 136-58  
Lancelin 23-88 (2-3m)  
Rottnest I. 1-88 (1-2m)  
Perth 61-85 (2-3m)  
Fremantle 342-80 (9-12m)  
Garden I. 13-84 (1-2m)  
Cockburn Sound 3-59 (6-7m)

***Cyphastrea chalcidicum*** (Forskål, 1775)

Veron, Pichon and Wijsman-Best (1977): 173-176, figs. 342-349, 473.

Common only on NW Shelf reefs.

Records: Ashmore Reef 895-86 (outer slope, 10-20m)  
Scott Reef 376-85, 370-85 (lagoon, 6-7m)  
Rowley Shoals 366-85, 225-83, 368-85 (lagoon, 2-8m and outer slope, 10-25m)  
Middle Ningaloo Reefs 889-85 (lagoon, 5-12m)

***Cyphastrea microphthalma*** (Lamarck, 1816)

Veron, Pichon and Wijsman-Best (1977): 176-178, figs. 350-356

Common throughout distribution range.

Records: Ashmore Reef 511-86, 834-86, 855-86 (outer slopes, 5-20m)  
Scott Reef 364-85, 369-85, 371-85, 402-85, 399-85 (reef flat; lagoon, 6-7m; outer slope)  
Troughton I. 388-85  
Rowley Shoals 313-83, 235-83, 339-83 (lagoon, 2-8m and outer slope, 16-35m)  
Dampier Archipelago 708-84, 710-84, 529-80, 427-78, 16-72 (0-5m)  
Montebello Is. 608-81, 378-80, 377-80 (3-4m)  
Barrow I. 253-74, 261-74 (back reef)

Bundegi Reef, Exmouth Gulf 505-81 (2-4m)  
 Northern Ningaloo Reefs 477-81, 12-78, 203-81, 23-81, 506-81 (reef flat; lagoon, 2-9m)  
 Middle Ningaloo Reefs 871-85 (lagoon, 5-12m)  
 Dorre I. 115-81 (0-4m)  
 Dirk Hartog I. 1022-79, 468-79, 1023-79 (2-3m)  
 North I. (Houtman Abrolhos Is.) 391-85, 392-85, 386-85 (reef flat)  
 Wallabi Group (Houtman Abrolhos Is.) 202-74, 389-85, 213-78, 432-77, 49-88, 51-88, 53-88, 160-88 (0-30m)  
 Easter Group (Houtman Abrolhos Is.) 72-73, 394-85, 434-77, 45-88 (reef flat; reef front, 6m and channel, 38m)  
 Pelsaert Group (Houtman Abrolhos Is.) 393-85 (back reef)  
 Houtman Abrolhos Is. 402-84, 404-84, 411-84, 410-84  
 Port Gregory 37-58

***Cyphastrea* sp. 1**

Recorded from two specimens, both primarily characterised by the presence of a distinct first cycle of septa in most corallites.

Records: Scott Reef 363-85  
 Middle Ningaloo Reefs 863-85

**GENUS ECHINOPORA Lamarck, 1816**

***Echinopora lamellosa* (Esper, 1795)**

Veron, Pichon and Wijsman-Best (1977): 183-187, figs. 366-374, 474, 475.

Common throughout distribution range.

Records: Ashmore Reef 612-86, 676-86 (outer slope, 10-20m)  
 Cartier Reef 535-86 (outer slope, 8-22m)  
 Scott Reef 426-85 (lagoon, 6-7m)  
 Rowley Shoals 445-83, 331-83, 348-83, 437-83, 393-83 (lagoon, 9-18m and outer slope, 10-30m)  
 Dampier Archipelago 232-84, 101-74, 508-78, 410-85, 238-84, 239-84, 255-73, 137-74, 11-72, 10-72, 254-73 (reef front, 2-9m)  
 Onslow 46-59  
 Northern Ningaloo Reefs 8-81, 517-81, 210-77, 86-81, 51-78, 209-77, 509-81, 510-81, 185-81 (reef flat; back reef; lagoon, 2-9m)  
 Middle Ningaloo Reefs 947-85 (4m)  
 Southern Ningaloo Reefs 549-78, 551-78, 511-81, 512-81, 513-81 (lagoon 0-4m and passage, 2-3m)

***Echinopora hirsutissima* Edwards & Haime, 1849**

Veron, Pichon and Wijsman-Best (1977): 192-193, figs. 383-387.

Rare.

Records: Ashmore Reef 743-86 (outer slope, 10-20m)  
 Cartier Reef 781-86 (outer slope)  
 Scott Reef V  
 Dampier Archipelago 155-74 (reef front)

***Echinopora horrida* Dana, 1846**

Veron, Pichon and Wijsman-Best (1977): 194-198, figs. 388-391, 476.

Sometimes common in lagoons.

Records: Ashmore Reef 583-86 (lagoon, 10-13m)  
 Scott Reef V  
 Rowley Shoals 216-83 (lagoon, 2-8m)

Dampier Archipelago 236-84, 102-74 (2m)  
Bundegi Reef, Exmouth Gulf 516-81 (2-4m)  
Northern Ningaloo Reefs 515-81, 514-81, 328-77 (back reef; lagoon, 6-9m)

***Echinopora mammiformis*** (Nemenzo, 1959)

Veron, Pichon and Wijsman-Best (1977): 198-201, figs. 392-399, 477.

Common, but with a very restricted distribution range.

Record: Scott Reef 409-85 (lagoon, 8m)

***Echinopora gemmacea*** (Lamarck, 1816)

Veron *et al.* 1977 pp. 187-191, figs. 375-382.

Recorded only from Cartier Reef in Western Australia, common on the Great Barrier Reef.

Record: Cartier Reef 481-86 (outer slope, 8-22m)

***Echinopora* sp. 1**

An unidentified species formerly believed to be an ecomorph of *E. lamellosa* and figured as *E. lamellosa* by Veron (1986) p. 528, fig. 2.

Records: Ashmore Reef 557-86, 575-86, 596-86 (reef flat, 0-4m; lagoon, 2-13m)  
Barrow I. 247-74

GENUS MOSELEYA Quelch, 1884

***Moseleya latistellata*** Quelch, 1884

Veron, Pichon and Wijsman-Best (1977): 202-205, figs. 400-406.

Usually uncommon (Veron 1986b, p. 535, fig. 3, at the Houtman Abrolhos Is.) and restricted to lower reef slopes except on the north-west coast where it sometimes occurs intertidally.

Previous records from Western Australia: King Sound; Roebuck Bay; Broome; Montebello Is., Totton (1952)

Records: Admiralty Gulf 152-77 (intertidal)

Broome 479-83 (intertidal)

Dampier Archipelago 361-78, 362-78, 363-78, 364-78, 365-78, 311-84 (2-5m)

Passage Is. 383-80 (intertidal)

Middle Ningaloo Reefs 442-78, 448-78 (lagoon)

Bernier I. 848-81 (2-4m)

Shark Bay 691-81 (16m)

Dirk Hartog I. 755-81, 494-79 (3-6m)

Wallabi Group (Houtman Abrolhos Is.) 167-78, 229-78, 230-78, 443-77, 314-84, 446-84 (20-31m)

Easter Group (Houtman Abrolhos Is.) V

FAMILY TRACHYPHYLLIIDAE Verrill, 1901

GENUS TRACHYPHYLLIA Edwards & Haime, 1848

***Trachyphyllia geoffroyi*** (Audouin, 1826)

Veron, Pichon and Wijsman-Best (1977): 207-210, figs. 407-413.

Common on the north-west coast. (Veron 1986b, p. 538, figs. 1,2 at Dampier Archipelago) and usually found on soft substrates with turbid water.

Previous records from Western Australia: N.W. Australia (as *T. amarantus*) Folkesson (1919); King Sound (BMNH 95.10.9.148); Roebuck Bay (BMNH 95.10.9.149) both Matthai (1928).

Records: Admiralty Gulf 137-77, 32-78, 138-77, 31-78 (intertidal)  
Cape Voltaire 30-78  
Bigge I. 558-87, 560-87, 561-87 (intertidal)  
Prince Frederick Harbour 572-87, 573-87 (intertidal)  
Cockatoo I. 358-85 (intertidal)  
Yampi Sound 579-81  
Lacepede Is. 457-83, 468-83, 8-83 (intertidal)  
Dampier Archipelago 414-85, 418-85, 983-79, 355-85, 356-85, 357-85, 4-76, 309-84, 315-84, 312-84, 313-84, 990-79, 50-72, 370-78, 371-78, 310-84, 372-78, 2-76 (intertidal; 0-5m)  
Passage Is. 118-58, 382-80, 473-80 (intertidal; 12m)  
Barrow I. 267-74, 42-59 (intertidal)  
Onslow 48-59  
Learmonth, Exmouth Gulf 359-85

GENUS WELLSOPHYLLIA Pichon, 1980

*Wellsophyllia radiata* Pichon, 1980

Recorded from Australia only from two specimens in the British Museum (Natural History) (Veron 1986b, p. 540, 541). The validity of this genus is doubtful; other specimens attributed to it from other geographic regions are more *Trachyphyllia*-like.

Previous records from Western Australia: NW Australia, Pichon (1980): 258.

#### FAMILY CARYOPHYLLIIDAE Gray 1847

GENUS EUPHYLLIA Dana, 1846

There are only minor colour differences between colonies from the east and west coasts.

*Euphyllia glabrescens* (Chamisso & Eysenhardt, 1821)

Veron and Pichon (1980): 342-348, figs. 606-610, 822, 823

Usually uncommon.

Previous records from Western Australia: King Sound, Matthai (1928).

Records: Ashmore Reef V  
Scott Reef 574-85 (outer slope, 10-30m)  
Rowley Shoals V  
Admiralty Gulf 144-77 (intertidal)  
Cape Voltaire 28-78, 504-84  
Yampi Sound 494-85  
Cockatoo I. 495-85  
Lacepede Is. 460-83, 467-83  
Dampier Archipelago 375-78, 1-76, 5-76, 981-79, 3-76 (intertidal; 0-3m)  
Barrow I. 256-74, 257-74 (intertidal)  
Passage Is. 375-80 (intertidal)  
Northern Ningaloo Reefs 445-81, 446-81, 390-81 (lagoon, 2-5m)  
Middle Ningaloo Reefs 937-85 (0-1m)  
Houtman Abrolhos Is. V



***Euphyllia cristata*** Chevalier, 1971

Veron and Pichon (1980): 348, 351, figs. 611-614.

Rare.

Records: Rowley Shoals 434-83 (outer slope, 10-3m)

Dampier Archipelago 586-78 (2-3m)

***Euphyllia ancora/divisa*** (species separation not possible without soft parts)

*Euphyllia fimbriata* (Spengler, 1799)

*E. (Fimbriaphyllia)* Veron and Pichon (1980): 351-354, figs. 619, 620, 622.

Previous records from Western Australia: Lacepede Is.; King Sound (as *Euphyllia fimbriata* (Spengler), Matthai (1928).

Records: Cockatoo I. 492-85

Dampier Archipelago 342-78 (2-3m)

***Euphyllia divisa*** Veron & Pichon, 1980

Veron and Pichon (1980): 354-355, figs. 621, 623-625, 822, 824-826

Very common on lower reef slopes of the Houtman Abrolhos Is. (Veron 1986b, p. 548, fig. 1), usually uncommon elsewhere.

Records: Dampier Archipelago 290-84

Wallabi Group (Houtman Abrolhos Is.) 250-78, 137-78, 292-78, 480-77, 481-77, 483-77, 232-78, 180-78, 233-78, 234-78, 235-78, 293-78 (7-31m)

Easter Group (Houtman Abrolhos Is.) 485-77, 484-77, 482-77 (2-12m)

Pelsaert Group (Houtman Abrolhos Is.) 493-85 (4-5m)

Houtman Abrolhos Is. 444-84, 562-85

***Euphyllia ancora*** Veron & Pichon, 1980

Veron and Pichon (1980): 356-360, figs. 623, 627, 822, 827-829.

Usually uncommon.

Records: Ashmore Reef 789-86 (lagoon, 2-13m)

Scott Reef V

Rowley Shoals 309-83 (outer slope, 16-35m)

Dampier Archipelago 360-78, 369-78

Northern Ningaloo Reefs 451-81, 468-81 (lagoon, 6-9m)

Middle Ningaloo Reefs 911-85 (outer slope, 8-20m)

**GENUS CATALAPHYLLIA** Wells, 1971

***Catalaphyllia jardinei*** (Saville-Kent, 1893)

Veron and Pichon (1980): 360-362, figs. 629-637, 830, 831.

Previous records from Western Australia: Lacepede Is. (as *Euphyllia picteti*) Matthai (1928); Lacepede Is. (as *Catalaphyllia plicata*) Wells (1971).

Uncommon, restricted to turbid lagoons and coastal waters.

Records: Ashmore Reef 647-86 (lagoon, 0-18m)

Admiralty Gulf 158-77, 145-77, 27-78 (intertidal)

Yampi Sound 580-81

Dampier Archipelago 788-81, 789-81, 770-81, 373-78, 374-78 (0-10m)



GENUS PLEROGYRA Edwards & Haime, 1848

*Plerogyra sinuosa* (Dana, 1846)

Veron and Pichon (1980): 362-365, figs. 638-643, 832-834.

Previous records from Western Australia: Lacepede Is. (BMNH 95.10.9.87) Matthai (1928).

Usually found under overhangs and other such places where light availability is low, but sometimes occurs in exposed places in NW Shelf reef lagoons.

Records: Ashmore Reef V

Seringapatam Reef 366-79 (lagoon, 20m)

Rowley Shoals 385-83, outer slope (16-35m)

Dampier Archipelago (EPA)

Middle Ningaloo Reefs 907-85 (lagoon, 5-12m)

GENUS PHYSOGYRA Quelch, 1884

*Physogyra lichtensteini* (Edwards & Haime, 1851)

Veron and Pichon (1980): 366-370, figs. 645-652, 835, 836

Usually found under overhangs and in other such places where light availability is low, but, like *Plerogyra sinuosa*, it sometimes occurs in exposed places in NW Shelf reef lagoons, where it grow into unusually large colonies.

Records: Ashmore Reef V

Scott Reef V (lagoon, 4-8m)

Rowley Shoals 461-83 (outer slope)

Dampier Archipelago 149-74 (10m)

Middle Ningaloo Reef 560-78, 906-85 (lagoon, 5-12m)

GENUS MONTIGYRA Matthai, 1928

*Montigyra kenti* Matthai, 1928

Veron (1986b): 556, 557

A distinctive genus known from a single colony from the Lacepede Islands. It has not been observed during the present study.

Previous records from Western Australia: Lacepede Is., coll. Saville-Kent (BMNH 95.10.9.88, Holotype) Matthai (1928). Material examined, Holotype only.

#### FAMILY DENDROPHYLLIIDAE (Gray, 1847)

GENUS TURBINARIA Oken, 1815

As on the east coast, *Turbinaria* species become increasingly abundant the further south they range. In general, there are greater similarities between coralla of most species from high latitude localities on east and west coasts than there are between high and low latitude localities on the same coast.

*Turbinaria peltata* (Esper, 1794)

Veron and Pichon (1980): 374-378, figs. 657-663, 837-840.

Usually uncommon but very conspicuous throughout most of the distribution range. A single colony 1m high and 2-3m across has been recorded at Cockburn Sound; colonies at Geographe Bay are >1m diameter.

Previous records from Western Australia: King Sound; Roebuck Bay; Shark Bay (Bernard 1896); 42 miles WSW of Cape Jaubert, 31m, Folkson (1919)

Records: Ashmore Reef 658-86 (outer slope, 12-20m)

Scott Reef V

Admiralty Gulf 136-77 (intertidal)

Broome 482-83 (intertidal)

Dampier Archipelago 258-73, 259-73, 194-84, 500-78, 507-78, 512-80, 513-80, 195-84, 502-78, 503-78, 540-78, 268-85, 269-85, 496-85 (lagoon, 3-4m; reef front)

Passage Is. 354-80, 386-80, 11-83, 107-81 (0-28m)

Ningaloo Reef Tract V

Bernier I. 143-81 (2-4m)

Dorre I. 141-81, 138-81, 135-81 (0-5m)

South Passage, Shark Bay 564-79, 679-81, 674-81 (9-18m)

Dirk Hartog I. 684-81, 11-59, 480-79 (1-6m)

Wallabi Group (Houtman Abrolhos Is.) 379-79, 164-78

Easter Group (Houtman Abrolhos Is.) V

Perth 77-77, 316-78 (4-35m)

Fremantle 339-80, 340-80, 338-80 (9-12m)

Cockburn Sound 8-59 (4-5m)

Geographe Bay 24-59, 86-78, 310-78, 279-73 (9-18m)

***Turbinaria patula*** (Dana, 1846)

Veron and Pichon (1980): 378-381 figs. 664-669.

Uncommon; unrecorded from temperate localities where it is relatively common on the east coast.

Previous records from Western Australia: Holothuria Bank (Bernard 1896); 45 miles WSW of Cape Jaubert (Folkson 1919)

Records: Broome V

Dampier Archipelago 530-78, 497-85 (6m)

Cape Preston 359-80 (25m)

Barrow I. 106-81, 484-81 (28m)

***Turbinaria frondens*** (Dana, 1846)

Veron and Pichon (1980): 381-386, figs. 670-677, 846-849.

Very common throughout the distribution range. Coralla from temperate localities on both east and west coasts (Veron 1986b, p. 566, fig. 1, at Eagle Bay) tend to develop thickened branch-like fronds with distinctive, very exsert, conical corallites.

Previous records from Western Australia: King Sound; Roebuck Bay (as *T. edwardsi*) Bernard (1896); Shark Bay (as *T. magna*) Bernard (1896)

Records: Ashmore Reef

Scott Reef V

Rowley Shoals V

Admiralty Gulf 148-77 (intertidal)

Cockatoo I. 266-85

Port Hedland 10-83, 13-83, 14-83, 15-83 (16-30m)

Dampier Archipelago 534-80, 545-78, 546-78, 263-85, 260-73, 42-72, 261-73, 523-80, 516-80, 524-80, 532-80, 519-80 (5-9m)

Barrow I. 489-81

Passage Is. 108-81, 349-80, 359-80, 146-81, 357-80, 353-80, 350-80 (0-25m)

Northern Ningaloo Reefs 19-81, 217-81, 235-77 (back reef; outer slope, 6-9m)

Middle Ningaloo Reefs V

Bernier I. 142-81 (2-4m)  
 Dore I. 139-81, 136-81, 140-81, 397-81, 137-81 (0-4m)  
 South Passage, Shark Bay 471-79, 464-79, 459-79, 460-79, 764-81 (1-10m)  
 Dirk Hartog I. 465-79, 754-81, 576-79, 685-81, 461-79, 479-79 (1-6m)  
 North I. (Houtman Abrolhos Is.) 501-85  
 Wallabi Group (Houtman Abrolhos Is.) 159-78, 158-78, 377-79 (8-15m)  
 Easter Group (Houtman Abrolhos Is.) V  
 Pelsaert Group (Houtman Abrolhos Is.) 502-85, 320-77 (4-5m)  
 Port Gregory 132-58  
 Port Denison 500-85  
 Lancelin 26-88 (1-3m)  
 Rottne I. 95-85, 134-58, 8-84, 184-78, 9-84 (2-5m)  
 Fremantle 267-85 (3-6m)  
 Cockburn Sound 264-85, 458-78, 133-58, 497-81 (3-4m)  
 Bunbury 760-81  
 Geographe Bay 56-85, 25-59, 283-73, 1062-79 (4-20m)  
 King George Sound 5-87 (8-10m)  
 Bremer Bay 501-81 (6m)  
 Duke of Orleans Bay 504-81 (on granite at 7m; colony 7m diameter, stalked, with several flattish plates)

***Turbinaria mesenterina*** (Lamarck, 1816)

Veron and Pichon (1980): 386, figs. 678-693, 841-844.

Very common throughout the distribution range, especially at higher latitudes. At Geographe Bay colonies consists of tiers of plates up to 3m high and 3m across.

Previous records from Western Australia: 45 miles WSW of Cape Jaubert (as *T. speciosa*) Folkson (1919).

Records: Ashmore Reef

Rowley Shoals 470-83 (reef flat)  
 Broome 492-83, 478-83 (intertidal)  
 Dampier Archipelago 541-78, 542-78, 543-78, 514-80, 537-78, 518-80, 17-83 (4-38m)  
 Passage Is. 346-80, 355-80, 352-80 (2-17m)  
 Bundegi Reef, Exmouth Gulf 439-81, 440-81 (2-4m)  
 Northern Ningaloo Reefs 33-81, 237-77, 236-77 (outer slope, 12-15m)  
 Dirk Hartog I. 767-81, 463-79, 481-79 (1-5m)  
 Shark Bay 680-81, 681-81, 675-81 (16-18m)  
 Wallabi Group (Houtman Abrolhos Is.) V  
 Easter Group (Houtman Abrolhos Is.) 897-81 (1-2m)  
 Port Gregory 591-84  
 Port Denison V  
 Jurien Bay 73-85  
 Rottne I. 10-84, 498-81, 84-85 (1-5m)  
 Garden I. 695-81 (9-12m)  
 Geographe Bay 280-73, 599-84 (3-20m)  
 King George Sound 569-79 (17m)  
 Esperance 502-81 (18-45m)  
 Recherche Archipelago 503-81

***Turbinaria reniformis*** (Bernard, 1896)

Veron and Pichon (1980): 391-395, figs. 694-698, 843-845, 854.

Less common than *T. mesenterina* in the tropics and at Houtman Abrolhos Is., but is common at more southerly localities and it is the dominant species at the Recherche Archipelago.

Records: Ashmore Reef 518-86, 817-86 (outer slope, 12-20m)  
 Scott Reef V  
 Dampier Archipelago 163-74, 539-78, 536-80, 531-80 (reef flat; reef front)  
 Montebello Is.  
 Passage Is. 343-80 (2-5m)  
 Northern Ningaloo Reefs 79-81, 234-77 (outer slope, 2-15m)  
 Dirk Hartog I. 756-81 (3-6m)  
 Wallabi Group (Houtman Abrolhos Is.) 153-88  
 Houtman Abrolhos Is. 499-85  
 Lancelin 158-81, 27-88 (1-3m)  
 Fremantle  
 Rottnest I. 164-80  
 Geographe Bay 499-81, 312-78, 313-78, 314-78, 315-78, 450-79, 281-73, 282-73, 500-81  
 (16-20m)  
 King George Sound 6-87 (10-12m)  
 Hopetoun 416-86 (15m)  
 Recherche Archipelago 123-85, 128-85, 126-85, 399-86 (9-20m)

***Turbinaria stellulata*** (Lamarck, 1816)

Veron and Pichon (1980); 395-400, figs. 699-705, 850-854.

Usually uncommon throughout the distribution range.

Records: Ashmore Reef 641-86 (lagoon, 0-6m)  
 Scott Reef V  
 Rowley Shoals 212-83, 402-83, 264-83, 265-85 (lagoon, 2-18m)  
 Dampier Archipelago 530-80, 520-80, 39-72 (reef flat)  
 Montebello Is. 358-80 (3-4m)  
 Northern Ningaloo Reefs 453-81 (outer slope, 8-11m)  
 Middle Ningaloo Reefs 506-78  
 Wallabi Group (Houtman Abrolhos Is.) V

***Turbinaria bifrons*** Brüggemann, 1877

Veron and Pichon (1980); 400-406, figs. 706-711, 855.

Usually uncommon except for some restricted coastal localities.

Previous records from Western Australia: Western Australia, coll. Capt. Beckett, Bernard (1896); Bassett-Smith Shoal, Holothuria Reef, coll. Admiralty, (as *T. aequalis*) Bernard (1896); Roebuck Bay (as *T. dendrophyllia*) Bernard (1896).

Records: Yampi Sound 167-77  
 Broome 487-83, 483-83, 495-83 (intertidal)  
 Dampier Archipelago 510-80, 529-78, 533-78, 521-80, 973-79, 522-80, 532-78, 534-78,  
 535-78, 536-78, 974-79 (intertidal; 0-5m)  
 Barrow I. 248-74 (back reef)  
 Passage Is. 356-80, 807-81, 348-80 (intertidal; 0-5m)  
 Northern Ningaloo Reefs 196-81 (outer slope, 12-15m)  
 Bernier I. 145-81 (2-4m)  
 Dorre I. 395-81 (0-4m)  
 Shark Bay 713-81, 678-81, 677-81, 596-81, 1024-79 (1-6m)  
 Dirk Hartog I. 686-81, 683-81, 485-79, 486-79, 483-79, 484-79 (0-5m)  
 South Passage, Shark Bay 482-79 (9-12m)  
 Wallabi Group (Houtman Abrolhos Is.) 28-88 (9m)  
 Port Gregory 592-84, 202-84

***Turbinaria conspicua*** Bernard, 1896

*Turbinaria conspicua* Bernard 1896: 70-72, pls 22, 33 fig 2.

Uncommon except for Dampier Archipelago (Veron 1986b, p. 571, fig. 1).

Previous records from Western Australia: Shark Bay (type loc.) Saville-Kent coll., Bernard (1896). Bernard (1896) examined a large series of specimens of which 16 were collected by Saville-Kent at Shark Bay which is assumed to be the type locality, no type specimen was designated.

Records: Kimberley Coast

Dampier Archipelago 198-84, 531-78, 197-84 (4-5m)

Ningaloo Reefs

Dirk Hartog I. 487-79 (4-5m)

Wallabi Group (Houtman Abrolhos Is.) 216-78 (33m)

Port Denison 201-84

***Turbinaria radicalis*** Bernard, 1986

Veron and Pichon (1980): 406-408, figs. 712-716

Records: Wallabi Group (Houtman Abrolhos Is.) 29-88

***Turbinaria* sp. 1**

Not recorded from eastern Australia.

Records: Dampier Archipelago 498-85

Passage Is. 347-80 (2-5m)

Dirk Hartog I. 462-79, 478-79, 21-59 (0-12m)

GENUS DUNCANOPSAMMIA Wells, 1936

***Duncanopsammia axifuga*** (Edwards & Haime, 1848)

Veron and Pichon (1980); 412-415, figs. 722-725.

Usually uncommon but very conspicuous; restricted to protected soft substrates.

Records: Admiralty Gulf 141-77 (intertidal)

Dampier Archipelago 491-80, 414-78, 415-78 (3-4m)

Passage Is. 369-80, 385-80 (0-5m)

Ningaloo Reef Tract

South Passage, Shark Bay 559-79, 1025-79 (18-20m)

Dirk Hartog I. 12-59 (4-5m)

GENUS HETEROPSAMMIA Edwards & Haime, 1848

***Heteropsammia cochlea*** (Spengler, 1781)

Seldom found as the species is restricted to soft, deep substrates where it may occur in dense aggregations.

Records: Port Hedland 77-83 (65-68m)

Dampier Archipelago 90-83 (50-52m)

Northwest Cape 503-85 (137m)

Houtman Abrolhos

Port Gregory

## ACKNOWLEDGEMENTS

A large number of people, who cannot all be acknowledged here, have contributed to the coral collections of the Western Australian museum (see introductory sections). Many more have contributed to field work for the present publication. Field work was funded by the Western Australian Museum (partly through the Marine Science and Technology Grants Scheme), the Australian Institute of Marine Science, the Western Australian Department of Conservation and Land Management, the Western Australian Environmental Protection Authority, and the Marine Laboratories of the CSIRO, Perth. The authors gratefully acknowledge the assistance of Western Australian Museum staff, especially Dr P. Berry, Mr Clay Bryce and Ms Shirley Slack-smith, the assistance of Mr Ed Lovell and Mr J. Carleton (AIMS), Dr Barry Wilson (CALM), Drs Chris Simpson and Graham Chittleborough (EPA), Dr Bruce Hatcher (CSIRO) and Mr Peter Sartori (of M.V. *Piscean*). We also thank Mrs Anne Nevin (WAM) and Ms Frances Conn (AIMS) for typing the manuscript.



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